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# **Synopsis of the Digenea of Mammals of North America**

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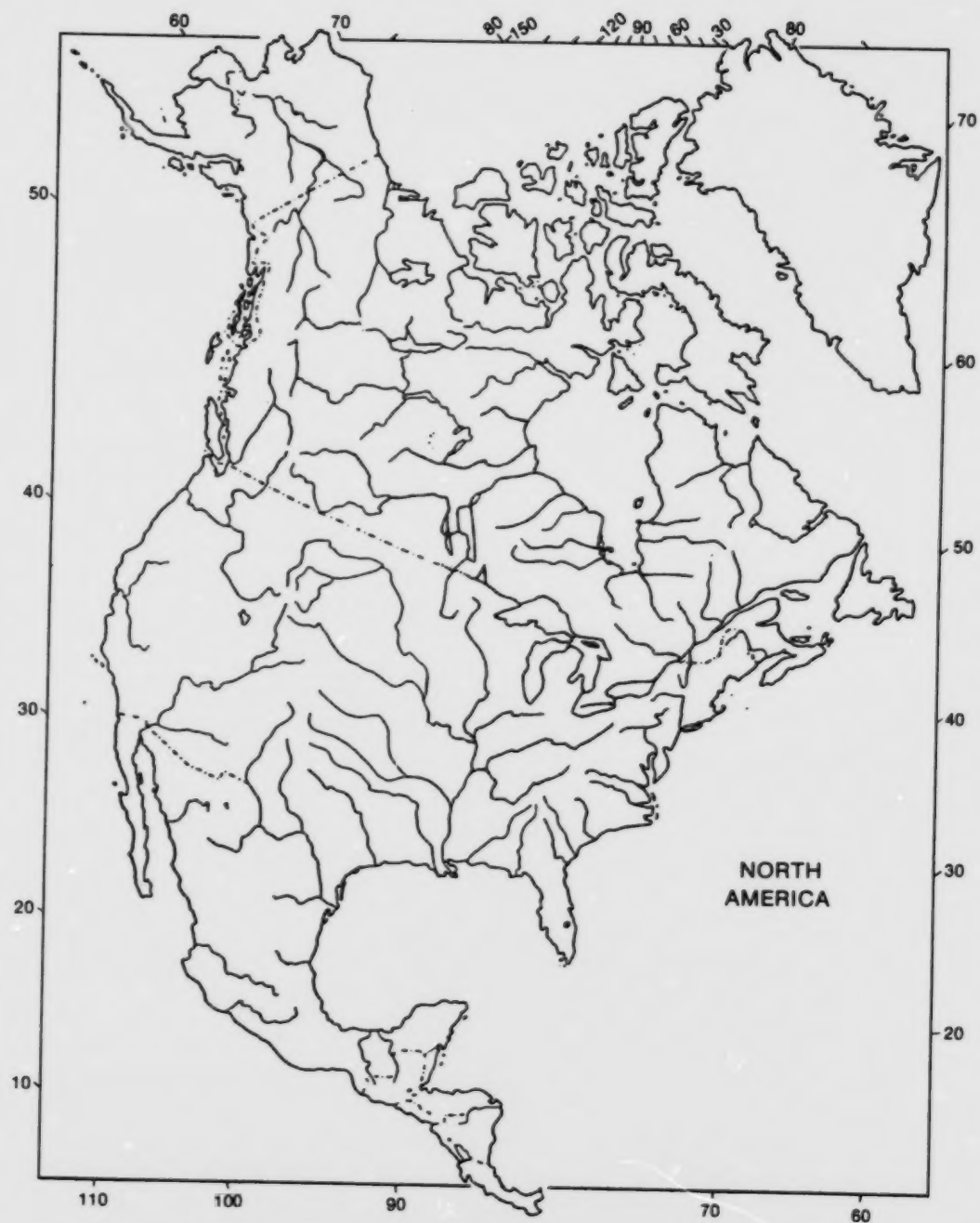


**Figure 1. Geographic range of hosts covered in this synopsis.**

## INTRODUCTION

The Digenea of North American mammals are still incompletely known, and this synopsis should not be used as a primary source of zoogeographic information, since the completeness of coverage and the geographical range covered vary from author to author and from group to group. The synopsis includes records from continental North America north of Panama (terrestrial mammals) and adjacent oceans (marine mammals)(Figure 1). Canadian arctic islands and Greenland are included in the coverage because of their interconnection with ice and the wide migration of many mammals. Conversely, oceanic islands such as Hawaii (USA), Guadalupe (Mexico), etc., have not been included because of their distance from continental North America.

The compiled information on the Digenea of North America covers the period from 1858 to June 1987, and was extracted from numerous publications in the primary scientific literature. Journal series such as the Canadian Journal of Zoology, Canadian Journal of Research, Journal of Wildlife Diseases, Proceedings of the Helminthological Society of Washington, and the Journal of Parasitology were searched in their entirety. Abstracting series such as Zoological Records and Helminthological Abstracts were scanned for additional references. Theses and reports of federal and provincial governments and of other institutions were not searched extensively, hence, some existing records may have been omitted.

I conducted a least squares regression analysis on the number of papers published since 1858 (Figure 2) to estimate the number of publications we may expect to see in the 1980s. The estimate was based on the multivariate general linear model:  $y = mx + b$  where  $y$  is a vector of dependent variables,  $x$  is a vector of independent variables,  $b$  is a vector of regression coefficients, and  $m$  is a vector of random errors. The analysis predicted  $123 \pm 18$  papers will be published in the 1980s. In the present synopsis 50 papers up to June 1987 were reviewed.

In providing references to the parasite-host-distribution data, I attempted to include only reports based on original records. A list of publications not providing original parasite-host-distribution records but dealing with some aspect of Digenea in North American mammals has been included in a supplementary list of references.

The synopsis indicates that up to June 1987, at least 214 species of Digenea divided among 28 families have been reported from 138 species of mammals of North America. Parasites and hosts not identified to the species level are not included in the total number. The 138 species of mammals are divided among 11 orders and 35 families.

The taxonomic arrangement adopted for the Digenea for the most part follows that of Brooks et al. (1985)(families and orders) and Schell (1985) (genera). Host nomenclature and classification conforms to that of Hall (1981), except that *Odocoileus* rather than *Dama* is used for the white-tailed, mule, and black-tailed deer. The entries in the synopsis are organized in accordance with the format adopted by Margolis and Arthur (1979) in their *Synopsis of the Parasites of Fishes of Canada*.

In the **Parasite-Host list**, species, genera, family, and order names are listed alphabetically. For each parasite species listed, the following information is provided:

1. The current **scientific name**, including author(s) and date(s), followed by any recognized synonyms that may have been used in establishing the North American record(s). Adult and larval stages are recorded separately for the Diplostomidae. No attempt was made to evaluate systematically the validity of published records, but attention is drawn to obvious errors.
2. The **site** of occurrence of the parasite in its host(s) (aberrant sites usually are not included). When the site was not given, the likely site was determined from other records.
3. The **hosts**. Only currently accepted scientific names are given in the Parasite-Host List. Numbers in parentheses after each host name correspond with the numbers assigned to the references establishing the particular parasite-host record(s).
4. **Distribution** (Dist.) Species distribution is indicated by province or territorial boundary (Canada), state (United States) or country (Central America) and are listed in alphabetical order according to the abbreviations listed in Table 1.

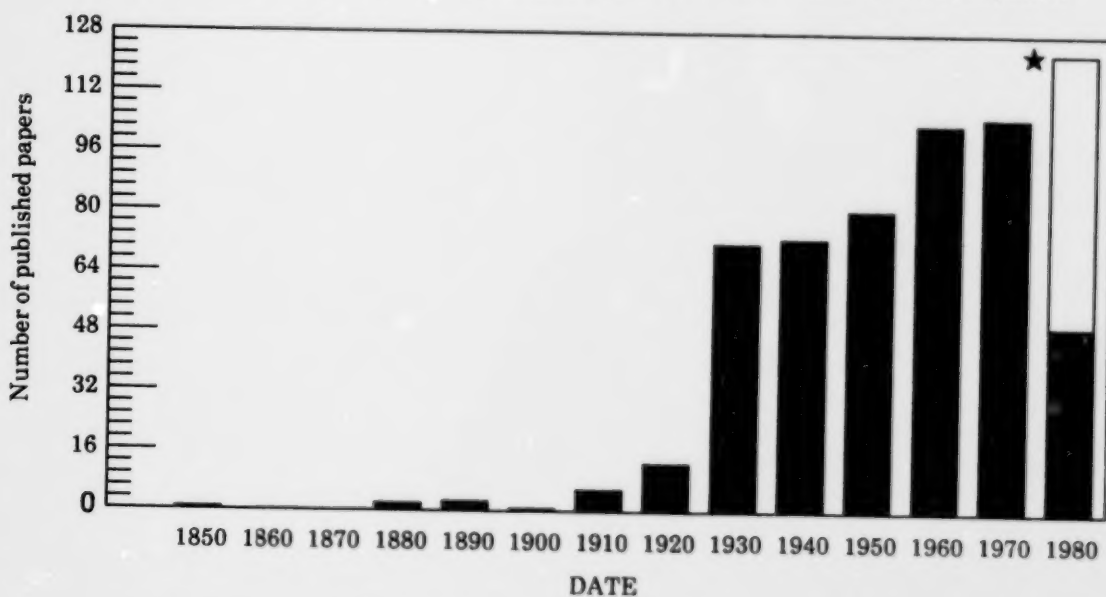
5. **Authors** responsible for the records are listed in chronological order of the published records. The records are numbered and each reference is followed by the locality or localities from which the parasite was (were) reported. A corresponding number is placed after the host name to indicate the author(s) responsible for particular host-parasite locality records. When only one host is listed for a particular parasite, the references are not numbered, and when all records are from the same locality, the latter was not listed after the authors' names.

6. Under **remarks**, explanatory comments, as required, are offered on systematics, nomenclature, misidentifications, and synonyms of parasites, and on the hosts, sites within hosts, and validity of previous records.

In the **Host-Parasite List**, within each order, the families, genera, species, and subspecies are listed alphabetically. Host synonyms included are only those that were used in establishing the North American parasite records. After the name of each parasite species, its geographic distribution in the host in question is given in parentheses.

The **References** are given in two parts, the first includes those directly referred to in the text, and a second, **Supplementary References** contains a list of publications dealing with various aspects of Digenea of North America mammals but which do not contain original parasite-host records.

**Figure 2** Number of papers published on the Digenea of mammals from 1850 to June, 1987.



★ Predicted number of papers published by the end of 1989.

**Table 1.** List of abbreviations used for parasite distribution data in the synopsis.

| Country       | Province/Territory/   | Abbreviation | Country/State     | Abbreviation |
|---------------|-----------------------|--------------|-------------------|--------------|
| Canada        |                       |              |                   |              |
|               | Alberta               | Alta         | Minnesota         | MN           |
|               | British Columbia      | BC           | Mississippi       | MS           |
|               | Manitoba              | Man          | Missouri          | MO           |
|               | New Brunswick         | NB           | Montana           | MT           |
|               | Newfoundland          | Nfld         | Nebraska          | NB           |
|               | (including Labrador)  |              | Nevada            | NV           |
|               | Nova Scotia           | NS           | New Hampshire     | NH           |
|               | Northwest Territories | NWT          | New Jersey        | NJ           |
|               | Ontario               | Ont          | New Mexico        | NM           |
|               | Prince Edward Island  | PEI          | New York          | NY           |
|               | Quebec                | Que          | North Carolina    | NC           |
|               | Saskatchewan          | Sask         | North Dakota      | ND           |
|               | Yukon Territories     | YT           | Ohio              | OH           |
|               | State                 |              | Oklahoma          | OK           |
| United States |                       |              | Oregon            | OR           |
|               | Alabama               | AL           | Pennsylvania      | PA           |
|               | Alaska                | AK           | Puerto Rico       | PR           |
|               | Arizona               | AZ           | Rhode Island      | RI           |
|               | Arkansas              | AR           | South Carolina    | SC           |
|               | California            | CA           | South Dakota      | SD           |
|               | Colorado              | CO           | Tennessee         | TN           |
|               | Connecticut           | CT           | Texas             | TX           |
|               | Delaware              | DE           | Utah              | UT           |
|               | District of Columbia  | DC           | Vermont           | VT           |
|               | Florida               | FL           | Virginia          | VA           |
|               | Georgia               | GA           | Washington        | WA           |
|               | Hawaii                | HI           | West Virginia     | WV           |
|               | Idaho                 | ID           | Wisconsin         | WI           |
|               | Illinois              | IL           | Wyoming           | WY           |
|               | Indiana               | IN           |                   |              |
|               | Iowa                  | ID           | Mexico            | --           |
|               | Kansas                | KS           |                   |              |
|               | Kentucky              | KY           | (Central America) |              |
|               | Louisiana             | LA           | Belize            | --           |
|               | Maine                 | ME           | Costa Rica        | --           |
|               | Maryland              | MD           | El Salvador       | --           |
|               | Massachusetts         | MA           | Honduras          | --           |
|               | Michigan              | MI           | Nicaragua         | --           |
|               |                       |              | Panama            | --           |



# **PARASITE - HOST LIST**



**CLASS TREMATODA Rudolphi, 1808**  
**SUBCLASS DIGenea**

**van Beneden, 1858**

**ORDER ECHINOSTOMATIFORMES**

**LaRue, 1957**

**FAMILY CAMPULIDAE Odhner, 1926**

***Campula oblongata* Cobbold, 1858**

Site: bile duct, pancreatic duct,  
hepatopancreatic duct, beneath the  
serous membrane of the liver.

Hosts: *Phocoena phocoena* (1,4,5)  
*Phocoenoides dalli* (2,3,6)

Dist.: CA, Nfld, OR, WA

Records: 1. Ching and Robinson 1959 (WA);  
2. Dailey 1971 (CA); 3. Migaki et al. 1971  
(unspecified); 4. Smith and Threlfall 1973  
(Nfld); 5. Dailey and Stroud 1978 (OR); 6.  
Dailey and Walker 1978 (CA)

***Campula palliata* (Looss, 1885)**

Syn.: *Distomum palliatum* Looss, 1885

Site: bile duct, pancreatic duct, liver

Hosts: *Delphinus delphis* (1)  
*Steno bredanensis* (3)  
*Tursiops nesarnack* (2)

Dist.: Costa Rica, FL

Records: 1. Looss 1885 (Costa Rica); 2.  
Woodard et al. 1969 (FL); 3. Forrester and  
Robertson 1975 (FL)

***Campula rochebruni* (Poirier, 1886)**

Syn.: *Distomum rochebruni* Poirier, 1886

Site: bile duct, pancreatic duct,  
hepatopancreatic duct

Host: *Delphinus delphis*

Dist.: CA

Records: Ridgway and Dailey 1972; Dailey  
and Walker 1978

***Hadwenius mironovus* (Krotov and Deliamure,  
1952)**

Syn.: *Leucasiella mironovi* Krotov and  
Deliamure, 1952

Site: stomach, duodenum

Host: *Phocoena phocoena*

Dist.: OR

Record: Dailey and Stroud 1978

***Hadwenius nipponicus* Yamaguti, 1950**

Site: stomach, duodenum

Host: *Phocoena phocoena*

Dist.: OR, WA

Records: Ching and Robinson 1959 (WA);  
Dailey and Stroud 1978 (OR)

***Hadwenius seymouri* (Price, 1932)**

Syn.: *Odhneriella seymouri* (Price, 1932)  
Skrjabin, 1944

Site: intestine

Host: *Delphinapteras leucas*

Dist.: AK

Record: Price 1932

***Lecithodesmus goliath* (van Beneden, 1858)  
Odhner, 1905**

Site: bile duct

Host: *Balaenoptera physalus* (1)  
*Eschrichtius gibbosus* (2)

Dist.: CA, BC

Record: 1. Margolis and Pike 1955 (BC); 2.  
Rice and Wolman 1971 (CA)

***Lecithodesmus spinosus* Margolis and Pike, 1955**

Site: bile ducts

Host: *Balaenoptera borealis*

Dist.: BC

Record: Margolis and Pike 1955

***Orthosplanchnus arcticus* Odhner, 1905**

Site: liver, bile ducts

Hosts: *Globicephala melaena* (2,3)  
*Phoca hispida* (1)

Dist.: Nfld, NWT

Records: 1. Cooper 1921 (NWT); 2. Cowan  
1966 (Nfld), 3. 1967 (Nfld)

Remarks: Cowan (1966) initially reported  
this species simply as "trematode worms."

***Orthosplanchnus fraterculus* Odhner, 1905**

Site: gall bladder, bile duct

Hosts: *Enhydra lutris* (1,2)  
*Erignathus barbatus* (1)

Dist.: AK

Records: 1. Rausch and Locker 1951; 2.  
Rausch 1953

***Synthesium tursionis* (Marchi, 1873)**

Site: intestine

Host: *Steno bredanensis*

Dist.: FL

Record: Forrester and Robertson 1975

***Zalophotrema hepaticum* Stunkard and Alvey,  
1929**

Site: bile duct, liver, small intestine

Hosts: *Eumetopias jubatus* (7)  
*Tursiops nesarnack* (3)  
*Zalophus californianus* (1,2,4,5,6,7)

Dist.: CA, NY, OR

Records: 1. Stunkard and Alvey 1929 (NY); 2. 1930 (NY); 3. Brown et al. 1960 (CA); 4. Fleischman and Squire 1970 (CA); 5. Sweeney 1974 (CA); 6. Sweeney and Gilmartin 1974 (CA); 7. Stroud and Dailey 1978 (OR)

*Zalophotrema* spp.

Site: brain, liver

Hosts: *Lagenorhynchus obliquidens* (1)

*Zalophus californianus* (2)

Dist.: CA

Records: 1. Ridgway and Dailey 1972; 2. Schroeder et al. 1973

Campulidae gen. spp.

Site: brain, pancreas

Hosts: *Delphinus delphis* (1)

*Erignathus barbatus* (2)

Dist.: AK, CA

Records: 1. Ridgway and Johnston 1965 (CA); 2. Bishop 1979 (AK)

FAMILY ECHINOSTOMATIDAE Looss, 1899

*Baschkirovitrema incrassatum* (Diesing, 1850)  
Skrjabin, 1944

Site: stomach, small intestine

Hosts: *Lutra canadensis* (1,3,4)

*Mustela vison* (2)

Dist.: AL, GA, NY, NC

Records: 1. Sawyer 1961 (GA, NY); 2. Miller and Harkema 1964 (NC); 3. 1968 (NC); 4. Fleming et al. 1977 (AL)

*Echinochasmus schwartzi* Price, 1931

Site: small intestine

Hosts: *Ondatra zibethicus* (1,2,3)

*O. z. macrodon* (6)

*O. z. rivalicicus* (4,5)

Dist.: LA, MD, Ont, TX

Records: 1. Price 1931b (MD); 2. Law and Kennedy 1932 (Ont); 3. Chandler 1941 (TX); 4. Byrd and Reiber 1942b (LA); 5. Penn 1942 (LA); 6. Abram 1969 (MD)

*Echinoparyphium contiguum* Barker and Bastron, 1915

Site: duodenum

Host: *Ondatra zibethicus* (1,2,3,4,5,6)

*O. z. obscurus* (7)

Dist.: BC, KS, MI, NE, Nfld, Ont

Records: 1. Barker 1915 (NE); 2. Law and Kennedy 1932 (Ont); 3. Ameel 1942 (MI); 4. Knight 1951 (BC); 5. Sweatman 1952 (Ont);

6. Gash and Hanna 1972 (KS); 7. Rigby and Threlfall 1981 (Nfld)

*Echinoparyphium recurvatum* (vonLinstow, 1873)  
Luhe, 1909

Syn.: *Distoma recurvatum* vonLinstow, 1873

Site: small intestine

Host: *Ondatra zibethicus obscurus* (4)

*O. z. zibethicus* (1,2,3)

Dist.: IL, ME, Nfld, OH

Records: 1. Meyer and Reilly 1950 (ME); 2. Beckett and Gallicchio 1967 (OH); 3. Jilek 1977 (IL); 4. Rigby and Threlfall 1981 (Nfld)

*Echinoparyphium* spp.

Site: intestine

Hosts: *Alopex lagopus* (3)

*Ondatra zibethicus* (2)

*Vulpes vulpes* (1)

Dist.: GD, IL, NB

Records: 1. Leigh 1940 (IL); 2. MacKinnon and Burt 1978 (NB); 3. Rausch et al. 1983 (GD)

*Echinostoma callawayensis* Barker and Noll, 1915

Syn.: *Echinostomum callawayensis* Barker and Noll, 1915

Site: duodenum

Host: *Ondatra zibethicus*

Dist.: AK, NE, Ont

Records: Barker 1915 (NE); Law and Kennedy 1932 (Ont); Sweatman 1952 (Ont); Dunagan 1957a (AK), 1957b (AK)

*Echinostoma echinatum*

Syn.: *Distomum echinatum*

Site: duodenum

Host: *Ondatra zibethicus*

Dist.: PA

Record: Leidy 1888

*Echinostoma revolutum* (Froelich, 1802) Looss, 1899

Syn.: *Echinostomum armigerum* Barker and Irvine, 1915

*Echinostomum coalitum* Barker and Beaver, 1915

Site: stomach, small intestine, cecum

Hosts: *Castor canadensis* (25)

*Didelphis virginiana* (5,7)

*D. v. virginiana* (13)

*Myocastor coypus bonariensis* (20)

*Ondatra zibethicus*

(1,2,3,4,5,6,8,9,11,13,15,16,18,21,22,27,29,31,33,35)

*O. z. obscurus* (36)

*O. z. occipitalis* (10)

*O. z. osoyoosensis* (19,24)

*O. z. zibethicus* (12,13,14,17,23,26,32)

*Procyon lotor* (29)

*Ursus arctos* (30)

*Vulpes vulpes* (34)

Dist.: BC, IL, KS, LA, MA, Man, MD, ME,  
MI, MN, MT, NB, NE, Nfld, NS, NY,  
OH, Ont, OR, PA, Que, UT, WI, WY

Record: 1. Barker 1915 (NE); 2. Anonymous  
1930 (Ont); 3. Law and Kennedy 1932 (Ont);  
4. Krull 1935 (MD); 5. Leigh 1940 (IL); 6.  
Ameel 1942 (MI); 7. Byrd and Reiber 1942a  
(IL); 8. Rankin 1946 (MA); 9. Rausch 1946b  
(OH); 10. Rider and Macy 1947 (OR); 11.  
Tiner and Chin 1948 (IL); 12. Edwards 1949  
(NY); 13. Rausch and Tiner 1949 (MI, WI);  
14. Meyer and Reilly 1950 (ME); 15. Knight  
1951 (BC); 16. Sweatman 1952 (Ont); 17.  
Gilford 1954 (IL); 18. Senger and Neiland  
1955 (OR); 19. Senger and Bates 1957 (UT);  
20. Babero and Lee 1961 (LA); 21. Gupta  
1926b (Que); 22. Anderson and Beaudoin  
1966 (PA); 23. Beckett and Gallicchio 1967  
(OH); 24. Grundmann and Tsai 1967 (UT);  
25. Smith and Archibald 1967 (NS); 26.  
Abram 1969 (MD); 27. Gash and Hanna 1972  
(KS); 28. Larson and Scharf 1975 (MN); 29.  
Rice and Heck 1975 (OH); 30. Worley et al.  
1976 (MT, WY); 31. Dyer and Klimstra 1977  
(IL); 32. Jilek 1977 (IL); 33. MacKinnon and  
Burt 1978 (NB); 34. Smith 1978 (NB, NS); 35.  
McKenzie and Welch 1979 (Man); 36. Rigby  
and Threlfall 1981 (Nfld)

*Echinostoma* spp.

Syn.: *Echinostomum* sp.

Site: small intestine

Hosts: *Didelphis virginiana* (4)

*Martes pennanti* (1)

*Ondatra zibethicus* (2)

*O. z. osoyoosensis* (3)

Dist.: Alta, CO, NC, Ont

Records: 1. Anonymous 1930 (Ont); 2.  
Swales 1933 (Alta); 3. Ball 1952 (CO); 4.  
Feldman et al. 1972 (NC)

*Euparyphium beaveri* Yamaguti, 1957

Site: duodenum, small intestine

Hosts: *Mustela vison* (1,3,4)

*Procyon lotor* (2,5,6)

Dist.: GA, LA, NC, SC, TN, WI

Records: 1. Lumsden and Zischke 1961 (LA);  
2. Harkema and Miller 1964 (GA, NC, SC); 3.  
Miller and Harkema 1964 (NC); 4. Dorney  
and Lauerman 1969 (WI); 5. Bafundo et al.  
1980 (TN); 6. Schaffer et al. 1981 (NC)

*Euparyphium inerme* (Fuhrmann, 1904)

Syn.: *Echinostomum inerme* Fuhrmann,  
1904

Site: intestine

Host: *Mustela vison*

Dist.: Ont

Records: Law and Kennedy; Price 1932

*Euparyphium melis* (Schrank, 1788) Dietz, 1909

Site: stomach, small intestine

Hosts: *Lepus americanus phaeonotus* (2)

*Lutra canadensis* (3)

*Mustela erminea cicognanii* (4)

*M. vison* (1,3,4)

*M. v. letifera* (5)

*Taxidea taxus* (6,7)

Dist.: IA, MI, MN, ND, Ont, WI

Records: 1. Law and Kennedy 1932 (Ont); 2.  
Erickson 1940 (MN); 3. Beaver 1941  
(MI, MN); 4. Erickson 1946 (MN); 5. Rausch  
and Tiner 1949 (WI); 6. Leiby et al. 1971  
(ND); 7. Wittrock and Ulmer 1974 (IA)

*Euparyphium* spp.

Site: small intestine

Host: *Taxidea taxus*

Dist.: MN

Records: Erickson 1946

*Stephanoprora spinosa*

Site: intestine

Host: *Procyon lotor*

Dist.: GA

Record: Schaffer et al. 1981

Echinostomatidae gen. sp.

Site: intestine

Host: *Ondatra zibethicus*

Dist.: NY

Records: Bump 1941, 1942

FAMILY FASCIOLIDAE Railliet, 1895

*Fasciola hepatica* Linnaeus, 1758

Site: bile ducts, liver

Hosts: *Bison bison* (6,9,10)

*Bos taurus* (11)

*Castor canadensis* (12)

*Cervus elaphus* (3)

*Lepus americanus* (12)

*L. californicus merriami* (5)

*Odocoileus hemionus* (12)

*O. h. columbianus* (1,7,8)

*O. virginianus* (12)

*Odocoileus* spp. (3,4)

*Sus scrofa* (11)

*Sylvilagus floridanus* (5)

Rabbit (2)

Dist.: BC, CA, GA, LA, MT, TX, WA, WY

Records: 1. Hadwen 1916 (BC); 2. Dikmans 1930 (LA); 3. Butler 1932 (MT); 4. Herman 1945 (CA); 5. Olsen 1948 (TX); 6. Locker 1953 (MT); 7. Longhurst and Douglas 1953 (CA); 8. Browning and Lauppe 1964 (CA); 9. Bergstrom 1967 (WY); 10. Dunn 1968 (unspecified); 11. Prestwood et al. 1975 (GA); 12. Lang 1977 (WA)

*Fascioloides magna* (Bassi, 1875) Ward, 1917

Syn.: *Distoma magnum* Bassi, 1875

*Fasciola magna* (Bassi, 1875)

Site: liver

Hosts: *Alces alces*

(28,30,31,35,40,41,51,54,57)

*A. a. americana* (5,7,44)

*Bison bison* (3,8,9,30)

*Cervus elaphus*

(9,23,24,27,28,30,33,36,41)

*C. e. nelsoni* (42)

*C. e. roosevelti* (42)

*Dicotyles tajacu angulatus* (47)

*Odocoileus hemionus columbianus*

(1,4,8,19,30,37,42)

*O. h. hemionus* (18,30)

*O. virginianus*

(1,8,9,10,11,12,13,14,15,16,17,21,25

26,28,29,32,34,39,42,43,44,46,50,52,

53,56,58,59,60)

*O. v. borealis* (22,35)

*O. v. leucurus* (61)

*Odocoileus* spp. (6,38,41,48)

*Rangifer tarandus caribou* (20,49)

*Sus scrofa* (50,55)

Dist.: AL, Alta, AR, BC, FL, GA, LA, Man, MI, MN, MS, MT, NC, NY, Ont, OR, Que, SC, TN, TX, WA, WI,

Records: 1. Stiles and Hassall 1894a (NY); 2. Hadwen 1916 (BC); 3. Cameron 1923 (Alta); 4. Hadwen 1932 (BC); 5. Fenstermacher 1934 (MN); 6. Levin 1934 (NY); 7. Wallace 1934 (MN); 8. Swales 1935 (Alta,BC); 9. 1936 (Que); 10. Bump 1937 (NY); 11. Aiton 1938 (MT); 12. Dinaburg 1939 (FL); 13. Whitlock 1939 (MI); 14. Bump 1940 (NY); 15. 1941 (NY); 16. 1942 (NY); 17. Cheatum 1942 (NY); 18. Cowan 1942 (BC); 19. 1946 (BC); 20. Erickson and Highby 1942 (MN); 21. Fenstermacher et al. 1943 (MN); 22. Olsen and Fenstermacher 1943 (MN); 23. Kingscote 1947 (Ont); 24. Shaw 1947 (OR); 25. Chaddock 1948 (WI); 26. Olsen 1949b (TX); 27. Anonymous 1950 (Ont); 28. Kingscote 1950 (Ont); 29. Cheatum 1951

(NY); 30. Cowar 1951 (Alta,BC); 31. Peterson 1955 (Ont); 32. Dahlberg and Guettinger 1956 (WI); 33. Kingscote 1957 (Ont); 34. Holland 1959 (AL,FL,LA, MS,SC,TN); 35. Griffiths 1962 (MN); 36. Stelfox 1962 (Alta); 37. Knapp and Shaw 1963 (OR); 38. Senger 1963 (MT); 39. Harlow and Jones 1965 (AL,FL); 40. Loken et al. 1965 (MN); 41. Fyvie 1966 (Ont); 42. Dutson et al. 1967 (OR,WA); 43. Glazener and Knowlton 1967 (TX); 44. Dunn 1968 (unspecified); 45. Flook and Stenton 1969 (Alta,BC); 46. Samuel and Trainer 1969 (WI); 47. Samuel and Low 1970 (TX); 48. Walker and Becklund 1970 (NC); 49. Choquette et al. 1971 (Que); 50. Foreyt and Todd 1972 (TX); 51. Lankester 1972 (Man); 52. Behrend et al. 1973 (NY); 53. Foreyt and Todd 1973 (TX); 54. Lankester 1974 (Man); 55. Foreyt et al. 1975 (TX); 56. Foreyt and Todd 1976 (TX); 57. Samuel et al. 1976 (Alta); 58. Foreyt et al. 1977 (TX); 59. Pursglove et al. 1977 (AL,AR,FL,GA,LA,MS,NC,SC,TN); 60. Foreyt and Drawe 1978 (TX); 61. Foreyt and Hunter 1980 (OR)

FAMILY NASITREMATIDAE (Ozaki, 1953)

*Nasitrema dalli* Yamaguti, 1950

Site: nasal sinus, air sinus

Host: *Phocoenoides dalli*

Dist.: CA

Records: Dailey 1971; Dailey and Walker 1978

*Nasitrema delphini* Neiland, Rice, and Holden, 1970

Site: air sinus

Host: *Delphinus delphis*

Dist.: CA

Record: Dailey and Walker 1978

*Nasitrema globicephalae*

Site: air sinus

Hosts: *Delphinus delphis*

*Lagenorhynchus obliquidens*

*Lissodelphis borealis*

Dist.: CA

Record: Dailey and Walker 1978

*Nasitrema stenosoma* Neiland, Rice, and Holden, 1970

Site: air sinus

Host: *Delphinus delphis*

Dist.: CA

Record: Dailey and Walker 1978

*Nasitrema* spp.

Site: air sinus, brain, muscle

Hosts: *Delphinus delphis* (1,2)

*Lagenorhynchus obliquidens* (1,2)

*Lissodelphis borealis* (1,2)

*Phocoenoides dalli* (2)

Dist.: CA

Records: 1. Schroeder et al. 1973; 2. Dailey and Walker 1978

UNIDENTIFIED NASITREMATIDAE

Nasitremitidae gen. spp.

Site: round window (ear)

Host: *Tursiops nesarnack*

Dist.: unspecified

Record: Dailey and Ridgway 1976

FAMILY PSILOSTOMIDAE Looss, 1900

*Gyrosoma singularis* Byrd, Bogitsh, and Maples, 1961

Site: small intestine

Hosts: *Mustela vison* (3)

*Procyon vison* (1,2)

Dist.: GA, LA, SC

Records: 1. Byrd et al. 1961 (GA); 2. Harkema and Miller 1964 (GA, SC); 3. Shoop and Corkum 1982 (LA)

*Psilostomum ondatrae* Price, 1931

Site: liver

Host: *Ondatra zibethicus*

Dist.: Ont

Record: Price 1931b; Law and Kennedy 1932

*Psilostomum* spp.

Site: intestine

Host: *Mephitis mephitis*

Dist.: LA

Record: Babero 1960b

*Psilotrema* spp.

Site: intestine

Host: *Ondatra zibethicus osoyoosensis*

Dist.: UT

Record: Grundmann and Tsai 1967

*Ribeiroia ondatrae* Babero, 1972, nec Price, 1931

Site: small intestine

Host: *Procyon lotor* (2)

skunks (1)

Dist.: FL

Record: 1. Babero 1972; 2. Schaffer et al. 1981

*Stephanoproraoides lawi* Price, 1934

Site: small intestine

Host: *Castor canadensis*

Dist.: MN, NS, Ont

Record: Price 1934 (Ont); Erickson 1944 (MN); Smith and Archibald 1967 (NS)

FAMILY RHOPALIASIDAE Looss, 1899

*Rhopalias baculifer* Braun, 1900

Site: intestine

Hosts: *Didelphis marsupialis* (1)

*Metachirops opossum fuscogriseus* (2)

Dist.: Costa Rica, FL

Records: 1. Loftin 1960 (FL); 2. Caballero and Gei 1961 (Costa Rica)

*Rhopalias coronatus* (Rudolphi, 1819) Stiles and Hassall, 1898

Site: intestine

Hosts: *Didelphis marsupialis* (5)

*D. m. cauae* (4)

*D. m. tabascensis* (2,3)

*D. virginiana* (1,3)

*Marmosa mexicana mexicana* (3)

*Metachirops opossum fuscogriseus* (6)

Dist.: Costa Rica, FL, Guatemala, Mexico, TX, VA

Records: 1. Stiles and Hassall 1894a (VA); 2. Caballero, Bravo-Hollis and Cerecoro 1944 (Mexico); 3. Caballero 1946 (Guatemala, Mexico, TX); 4. Caballero, et al. 1957 (Costa Rica); 5. Loftin 1960 (FL); 6. Caballero and Gei 1961 (Costa Rica)

*Rhopalias horridus* (Diesing, 1850) Stiles and Hassall, 1898

Site: intestine

Hosts: *Didelphis marsupialis cauae* (2)

*D. virginiana* (1)

*Metachirops opossum fuscogriseus* (3)

Dist.: Costa Rica, Guatemala

Records: 1. Caballero 1946 (Guatemala); 2. Caballero et al. 1957 (Costa Rica); 3. Caballero and Gei 1961 (Costa Rica)

*Rhopalias macracanthus* Chandler, 1932

Site: small intestine

Hosts: *Didelphis marsupialis* (14)

*D. m. tabascensis* (5,6)

*D. virginiana*

(1,2,3,4,7,8,10,11,12,13,15)

*D. v. californica* (16)  
*Didelphis* sp. (9)  
*Mustela vison* (11)  
 Dist.: FL, GA, IL, LA, Mexico, NC, OK, PA,  
 TX, TN,  
 Records: 1. Chandler 1932 (TX); 2. Canavan  
 1934 (PA); 3. Leigh 1940 (IL); 4. Byrd and  
 Reiber 1942a (TN); 5. Caballero, Bravo-  
 Hollis and Cerecoro 1944 (Mexico); 6.  
 Caballero 1946 (Mexico); 7. Ciordia 1949  
 (TN); 8. Self and McKnight 1950 (OK); 9.  
 Babero 1957 (IL), 10. 1960a (GA); 11.  
 Lumsden and Zischke 1961 (LA); 12. Miller  
 and Harkema 1970 (NC); 13. Feldman et al.  
 1972 (NC); 14. Lamothe-Argumedo 1978a  
 (Mexico), 15. Premvati and Bair 1979 (FL);  
 16. Miyazaki, Kifune, and Lamothe-  
 Argumedo 1980 (Mexico)

## ORDER OPISTHORCHIIFORMES

LaRue, 1957

FAMILY HETEROPHYIDAE Odhner, 1914

*Apophallus venustus* (Ransom, 1920) Cameron,  
 1936

Syn.: *Cotylophallus venustus* Ransom, 1920  
*Rossicotrema venustus* Deliamure  
 (1956)

Site: small intestine

Host: *Alopex lagopus* (1)

*Phoca vitulina* (4)

*Procyon lotor* (2,3,4,5,7)

Dist.: DC, GA, NC, Ont, OR, SC, VA

Records: 1. Ransom 1920 (DC); 2. Cameron  
 1936 (Ont), 3. 1937a (Can); 4. Babero and  
 Shepperson 1958 (GA); 5. Harkema and  
 Miller 1964 (GA, NC, SC, VA); 6. Stroud and  
 Dailey 1978 (OR); 7. Schaffer et al. 1981  
 (NC, VA)

Remarks: The Alaskan fox came from the  
 National Zoological Park in Washington,  
 D.C.

*Apophallus* spp.

Site: intestine

Host: *Mephitis mephitis*

Dist.: Que

Record: Webster and Wolfgang 1956

Remarks: Webster and Wolfgang (1956)  
 believed their species may be *Apophallus*  
*venustus*.

*Ascocotyle ampullacea* Miller and Harkema, 1962

Site: small intestine

Host: *Procyon lotor*

Dist.: NC

Records: Miller and Harkema 1962;  
 Harkema and Miller 1964

*Ascocotyle leighi* Burton, 1956

Site: small intestine

Hosts: *Procyon lotor* (2)

*P. l. solutus* (1)

Dist.: SC

Records: 1. Harkema and Miller 1962, 2.  
 1964

*Ascocotyle pachycystis* Schroeder and Leigh, 1965

Site: small intestine

Host: *Procyon lotor*

Dist.: FL

Record: Schroeder and Leigh 1965

*Cotylophallus similis* Ransom, 1920

Site: intestine

Host: *Phoca vitulina*

Dist.: DC

Record: Ransom 1920

Remarks: The Harbor seal came from the  
 National Zoological Park in Washington,  
 D.C.

*Cryptocotyle concavum* (Creplin, 1825)

Site: intestine

Host: *Alopex lagopus*

Dist.: GD

Record: Rausch et al. 1983

*Cryptocotyle jejuna* (Nicoll, 1907)

Site: small intestine

Host: *Callorhinus ursinus*

Dist.: AK

Record: Neiland 1961

*Cryptocotyle lingua* (Creplin, 1825) Fiscoeder,  
 1903

Syn.: *Distomum lingua* Creplin, 1825

Site: intestine

Hosts: *Phoca vitulina* (1)

*Vulpes vulpes* (2)

Dist.: DC, NB, NS

Record: 1. Ransom 1920 (DC); 2. Smith 1978  
 (NB, NS)

Remarks: The specimens were collected by  
 Dr. Albert Hassall from the intestine of  
*Phoca vitulina* housed at the National  
 Zoological Park, Washington, D.C.

*Euryhalmis monorchis* Ameel, 1938

Site: small intestine

Hosts: *Mustela vison* (1)

*Procyon lotor lotor* (2)

- Dist.: MI, OH, WI  
 Records: 1. Ameel 1938 (MI,OH,WI); 2. Rausch and Tiner 1949 (MI)
- Euryhelms pacificus* Senger and Macy, 1952  
 Site: small intestine  
 Hosts: *Mustela vison* (1,2)  
       *Ondatra zibethicus* (1,2)  
       *Sorex bendirii palmeri* (1)  
 Dist.: OR  
 Records: 1. Senger and Macy 1952; 2. Senger and Neiland 1955
- Euryhelms pyriformis* Webster and Wolfgang, 1956  
 Site: intestine  
 Host: *Mephitis mephitis*  
 Dist.: Que  
 Record: Webster and Wolfgang 1956
- Euryhelms squamula* (Rudolphi, 1819)  
 Site: small intestine  
 Hosts: *Mustela vison* (2,5)  
       *Peromyscus leucopus* (7)  
       *Procyon lotor* (1,3,4,8)  
       *Urocyon cinereoargenteus* (6)  
 Dist.: GA, NC, OR, TN, WV  
 Records: 1. Parker 1950 (NC); 2. Senger and Neiland 1955 (OR); 3. Babero and Shepperson 1958 (GA); 4. Harkema and Miller 1964 (NC); 5. Miller and Harkema 1964 (NC); 6. 1968 (GA); 7. Zenchak and Hall 1971 (WV); 8. Bafundo et al. 1980 (TN)
- Metagonimoides oregonensis* Price, 1931  
 Site: small intestine  
 Hosts: *Mustela vison* (4,7,11)  
       *Procyon lotor* (1,2,5,6,9,10,12,13)  
       *P. l. lotor* (8)  
       *P. l. pacificus* (3)  
 Dist.: GA, MI, NC, OH, OR, TN, VA  
 Records: 1. Price 1931a (OR); 2. Shaw 1947 (OR); 3. Burns and Pratt 1953 (OR); 4. Senger and Neiland 1955 (OR); 5. Sawyer 1958 (GA); 6. Harkema and Miller 1964 (NC); 7. Miller and Harkema 1964 (NC); 8. Williams and Myer 1964 (OH); 9. Wallace and Wilson 1965 (TN); 10. Lang et al. 1968 (NC); 11. Lang and Vail 1970 (MI); 12. Bafundo et al. 1980 (TN); 13. Schaffer 1981 (GA,NC,VA)
- Phagicola diminuta* (Stunkard and Haviland, 1924)  
 Syn.: *Ascocotyle diminuta* Stunkard and Haviland, 1924
- Parascocotyle lageniformis* (Chandler, 1941)  
*Phagicola lageniformis* Chandler, 1941  
 Site: small intestine  
 Hosts: *Didelphis virginiana* (7)  
       *Ondatra zibethicus* (2)  
       *Procyon lotor* (5,6)  
       *P. l. solutus* (4)  
       *Rattus sp.* (1,3)  
 Dist.: FL, NC, NY, SC, TX  
 Records: 1. Stunkard and Haviland 1924 (NY); 2. Chandler 1941 (TX); 3. Stunkard and Uzmman 1955 (NY); 4. Harkema and Miller 1962 (SC); 5. Miller and Harkema 1963 (NC,SC); 6. Harkema and Miller 1964 (NC,SC); 7. Premvati and Bair 1979 (FL)
- Phagicola longa* (Ransom, 1920) Price, 1935  
 Syn.: *Ascocotyle longa* Ransom, 1920  
 Site: small intestine  
 Hosts: *Alopex lagopus* (1)  
       *Procyon lotor* (4,5)  
       *P. l. solutus* (3)  
       *Vulpes vulpes* (2)  
 Dist.: DC, NC, Ont, Que, SC  
 Records: 1. Ransom 1920 (DC); 2. Swales 1933 (Ont,Que); 3. Harkema and Miller 1962 (SC); 4. Miller and Harkema 1963 (NC,SC); 5. Harkema and Miller 1964 (NC,SC)  
 Remarks: Ransom's material was described from an Alaskan fox housed at the National Zoological Park, Washington, D.C.
- Phagicola nana* (Ransom, 1920)  
 Syn.: *Ascocotyle nana* Ransom, 1920  
 Site: small intestine  
 Host: *Alopex lagopus* (1)  
       *Ondatra zibethicus rivalicicus* (2)  
 Dist.: DC, LA  
 Records: 1. Ransom 1920 (DC); 2. Byrd and Reiber 1942b (LA)  
 Remarks: Ransom's (1920) material was from an Alaskan fox housed at the National Zoological Park, Washington, D.C.
- Phocitrema fusiforme* Goto and Ozaki, 1930  
 Site: small intestine  
 Hosts: *Callorhinus ursinus* (3)  
       *Enhydra lutris* (1,2)  
       *Phoca vitulina largha* (4)  
 Dist.: AK  
 Records: 1. Rausch and Locker 1951; 2. Rausch 1953; 3. Neiland 1961; 4. Shults 1982
- Pholeter gastrophilus* (Kossack, 1910)

- Syn.: *Distomum gastrophilum* Kossack, 1910  
 Site: stomach  
 Hosts: *Steno bredanensis* (3)  
       *Tursiops gillii* (2)  
       *T. nesarnack* (1,2)  
 Dist.: FL  
 Records: 1. Woodard et al. 1969 (FL); 2. Migaki et al. 1971 (unspecified); 3. Forrester and Robertson 1975 (FL)
- Pricitrema eumetopii* Shults, 1978  
 Site: small intestine  
 Host: *Eumetopias jubatus*  
 Dist.: AK  
 Records: Shults 1978
- Pricitrema phocae* Shults, 1978  
 Site: intestine  
 Host: *Phoca vitulina richardsii*  
 Dist.: AK  
 Records: Shults 1978
- Pricitrema zalophi* (Price, 1932)  
 Syn.: *Apophallus zalophi* Price, 1932  
 Site: small intestine  
 Host: *Callorhinus ursinus* (3)  
       *Enhydra lutris* (1,2)  
       *Eumetopias jubatus* (4)  
       *Mirounga angustirostris* (4)  
       *Phoca vitulina* (4)  
       *Zalophus californianus* (4)  
 Dist.: AK, OR  
 Records: 1. Rausch and Locker 1951 (AK); 2. Rausch 1953 (AK); 3. Neiland 1961 (AK); 4. Stroud and Dailey 1978 (OR)
- Pricitrema* spp.  
 Site: small intestine  
 Host: *Erignathus barbatus*  
 Dist.: AK  
 Record: Bishop 1979
- FAMILY OPISTHORCHIIDAE Looss, 1899
- Amphimerus neotropicalis* Caballero, Gei, and Caballero, 1963  
 Site: pancreatic duct  
 Host: *Metachirops opossum fuscogriseus*  
 Dist.: Costa Rica  
 Record: Caballero, Gei and Caballero 1963
- Amphimerus pseudofelineus* (Ward, 1901) Barker, 1911  
 Site: bile duct, gall bladder  
 Host: *Didelphis virginiana* (1)
- Ondatra zibethicus zibethicus* (2)  
 Dist.: IL  
 Record: 1. Leigh 1940; 2. Gilford 1954
- Metorchis conjunctus* (Cobbald, 1860) Looss, 1899  
 Site: bile ducts, gall bladder, pancreas  
 Hosts: *Canis latrans* (3)  
       *Canis lupus* (3,8)  
       *Martes pennanti* (5)  
       *Ondatra zibethicus* (2)  
       *Procyon lotor* (6)  
       *Sigmodon hispidus* (7)  
       *Vulpes vulpes* (4)  
 Dist.: Alta, Man, NB, NS, Ont, PA, Que, Sask, VA  
 Records: 1. Sweatman 1952 (Ont); 2. Anderson and Beaudoin 1966 (PA); 3. Holmes and Podesta 1968 (Alta); 4. Smith 1978 (NB,NS); 5. Dick and Leonard 1979 (Man); 6. Schaffer et al. 1981 (VA); 7. Watson 1981 exp. (Que); 8. Wobeser et al. 1983 (Sask)
- Opisthorchis pricei* Foster, 1939  
 Site: bile ducts  
 Host: *Caluromys derbianus pallidus*  
 Dist.: Panama  
 Record: Foster 1939
- Opisthorchis tenuicollis* (Rud. 1819)  
 Site: bile duct  
 Host: *Lynx canadensis*  
 Dist.: Pa  
 Record: Canavan 1934  
 Remarks: The specimens came from an animal from the Pennsylvania Zoo.
- Opisthorchis tonkae* Wallace and Penner, 1939  
 Site: bile duct, gall bladder, pancreas, small intestine  
 Hosts: *Ondatra zibethicus* (1,3)  
       *O. z. zibethicus* (2)  
 Dist.: MN, NB, NY  
 Records: 1. Wallace and Penner 1939 (MN); 2. Edwards 1949 (NY); 3. MacKinnon and Burt 1978 (NB)
- Parametorchis canadensis* Price, 1929  
 Site: gallbladder  
 Host: *Mustela vison*  
 Dist.: Ont  
 Records: Price 1929; Anonymous 1930, 1931; Law and Kennedy 1932
- Parametorchis complexus* (Stiles and Hassall, 1894)  
 Site: liver

Host: *Procyon lotor*  
Dist.: NC, VA  
Records: Harkema and Miller 1964 (NC);  
Schaffer et al. 1981 (NC,VA)

*Parametorchis* spp.

Site: liver  
Host: *Ondatra zibethicus*  
Dist.: MD  
Record: Smith 1938

## ORDER PARAMPHISTOMIFORMES

Szidat, 1936

### FAMILY NOTOCOTYLIDAE Luhe, 1909

*Catatropis fimbriata* Barker, 1915

Site: duodenum  
Host: *Ondatra zibethicus*  
Dist.: NE  
Record: Barker 1915

*Catatropis johnstoni* Martin, 1956

Site: cecum and large intestine  
Host: *Oryzomys palustris*  
Dist.: FL  
Record: Bush and Kinsella 1972

*Notocotylus filamentis* (Barker, 1915) Harwood, 1939

Syn.: *Catatropis filamentis* Barker, 1915  
Site: large intestine  
Hosts: *Ondatra zibethicus* (1,2,3,4,6,7,8,9)  
*O. z. zibethicus* (5)  
Dist.: AK, IL, ME, Man, MI, Ont  
Records: 1. Law and Kennedy 1932 (Ont); 2. Harwood 1939 (MI); 3. Leigh 1940 (IL); 4. Ameel 1942 (MI); 5. Meyer and Reilly 1950 (ME); 6. Sweatman 1952 (Ont); 7. Dunagan 1957a (AK), 8. 1957b (AK); 9. McKenzie and Welch 1979 (Man)

*Notocotylus hassalli* McIntosh and McIntosh, 1934

Site: cecum, small intestine  
Hosts: *Microtus pennsylvanicus*  
*pennsylvanicus* (1,2)  
*Zapus hudsonius hudsonius* (3)  
Dist.: MD, MI, VA  
Records: 1. Stiles and Hassall 1894a (MD); 2. McIntosh and McIntosh 1934 (MD,VA); 3. Erickson 1938 (MI)  
Remarks: Stiles and Hassall recorded their trematode as *Monostoma* sp.. McIntosh and McIntosh reexamined the *Monostoma* sp. and believed it to be *N. hassalli*.

*Notocotylus urbanensis* (Cort, 1914) Harrah, 1922

Site: large intestine  
Hosts: *Ondatra zibethicus* (3,4,7,8)  
*O. z. occipitalis* (1)  
*O. z. osoyoosensis* (6)  
*O. z. zibethicus* (2,5)  
Dist.: BC, MI, NB, NY, OH, Ont, OR, PA, UT  
Records: 1. Rider and Macy 1947 (OR); 2. Edwards 1949 (NY); 3. Knight 1951 (BC); 4. Herber 1955 (MI,PA); 5. Beckett and Gallicchio 1967 (OH); 6. Grundmann and Tsai 1967 (UT); 7. Beverley-Burton and Sweeny 1972 (Ont); 8. MacKinnon and Burt 1978 (NB)

*Notocotylus* spp.

Site: intestine  
Hosts: *Ondatra zibethicus* (2)  
*O. z. zibethicus* (1)  
Dist.: IL, OR  
Records: 1. Gilford 1954 (IL); 2. Senger and Neiland 1955 (OR)

*Nudacotyle novicia* Barker, 1916

Site: bile duct, stomach, small intestine, large intestine  
Hosts: *Microtus pennsylvanicus*  
*pennsylvanicus* (6)  
*Ondatra zibethicus* (1,2,3,4,6,13)  
*O. z. macrodon* (10)  
*O. z. rivaliculus* (5)  
*O. z. zibethicus* (7,8,9)  
*Sciurus carolinensis* (12)  
*Sylvilagus palustris* (11)  
Dist.: AL, IA, IL, LA, MD, ME, MI, MN, NB, NC, OH, Ont, TX  
Records: 1. Barker 1916 (MN); 2. Law and Kennedy 1932 (Ont); 3. Chandler 1941 (TX); 4. Ameel 1942 (MI); 5. Penn 1942 (LA); 6. Ameel 1944 (IA,MI); 7. Meyer and Reilly 1950 (ME); 8. Gilford 1954 (IL); 9. Beckett and Gallicchio 1967 (OH); 10. Abram 1969 (MD); 11. Stringer et al. 1969 (NC); 12. Davidson 1976 (AL); 13. MacKinnon and Burt 1978 (NB)

*Nudacotyle* spp.

Site: small intestine  
Host: *Sciurus carolinensis carolinensis*  
Dist.: TN  
Record: Olexik et al. 1969

*Ogmogaster antarctica* Johnston, 1931

Syn.: *Ogmogaster plicatus* of Margolis and Pike (1955), in part  
Site: rectum, large intestine  
Hosts: *Balaenoptera borealis* (1)

- B. physalus* (2)  
*Eschrichtius gibbosus* (3)  
 Dist.: CA, BC  
 Records: 1. Rausch and Fay 1966 (BC); 2. Rausch and Rice 1970 (CA); 3. Rice and Wolman 1971 (CA)
- Ogmogaster pentalineatus* Rausch and Fay, 1966  
 Site: small intestine, rectum  
 Host: *Eschrichtius gibbosus*  
 Dist.: AL, CA  
 Records: Rausch and Fay 1966 (AL,CA); Rice and Wolman 1971 (CA)
- Ogmogaster plicatus* (Creplin, 1829) Jagerskiold, 1891  
 Site: rectum, small intestine  
 Hosts: *Balaenoptera borealis* (1)  
*B. physalus* (1,2,3,4)  
*Balaenoptera* sp. (3)  
 Dist.: CA, BC  
 Records: 1. Margolis and Pike 1955 (BC); 2. Rausch and Fay 1966 (BC); 3. Rausch and Rice 1970 (CA); 4. Rice and Wolman 1971 (CA); 5. Gibson and Harris 1979 (BC)
- Ogmogaster trilineatus* Rausch and Rice, 1970  
 Site: rectum  
 Host: *Balaenoptera physalus*  
 Dist.: CA  
 Record: Rausch and Rice 1970
- Paramonostomum pseudalveatum* Price, 1931  
 Site: small intestine, large intestine  
 Hosts: *Ondatra zibethicus* (1)  
*O. z. osoyoosensis* (3)  
*O. z. rivaliculus* (2)  
 Dist.: LA, MD, UT  
 Records: 1. Price 1931b (MD); 2. Penn 1942 (LA); 3. Grundmann and Tsai 1967 (UT)
- Quinqueserialis floridensis* Rausch, 1952  
 Site: cecum  
 Host: *Neofiber alleni nigrescens*  
 Dist.: FL  
 Record: Rausch 1952a
- Quinqueserialis hassalli* (McIntosh and McIntosh, 1934) Harwood, 1939  
 Site: cecum  
 Hosts: *Marmota monax* (2)  
*Microtus montanus fusus* (5)  
*M. m. nanus* (4,5)  
*M. pennsylvanicus modestus* (4,5)  
*Thomomys talpoides* (5)  
 Dist.: CO, MD, MN, NM, VA, WI, WY
- Records: 1. Harwood 1939 (MD,MN,VA); 2. Rausch and Tiner 1948 (WI); 3. 1949 (WI); 4. Kuns and Rausch 1950 (WY); 5. Smith 1954 (CO,NM,WY)
- Quinqueserialis quinqueserialis* (Barker and Laughlin, 1911) Harwood, 1939  
 Syn.: *Notocotyle quinqueserialis* Barker and Laughlin, 1911  
 Site: small intestine, large intestine, cecum  
 Hosts: *Microtus oeconomus macfarlanei* (14)  
*M. pennsylvanicus* (17)  
*M. p. drummondii* (14)  
*Ondatra zibethicus* (1,2,3,4,5,6,7,11, 12,14,15,18,19,20,22, 23,27,28,29,30,31,33,34)  
*O. z. obscurus* (35)  
*O. z. osoyoosensis* (13,21,25)  
*O. z. zibethicus* (8,9,10,16,24,26,32)  
*Zapus hudsonius* (17)  
 Dist.: AK, BC, CO, IA, IL, Lab, Man, MD, ME, MI, MT, NB, NE, Nfld, NY, OH, Ont, OR, PA, Que, UT, WI  
 Records: 1. Barker and Laughlin 1911 (NE); 2. Barker 1915 (NE); 3. Law and Kennedy 1932 (Ont); 4. Harwood 1939 (IA,MD,MT); 5. Ameel 1942 (MI); 6. Herber 1942 (MI,PA); 7. Rausch 1946b (OH); 8. Edwards 1949 (NY); 9. Rausch and Tiner 1949 (WI); 10. Meyer and Reilly 1950 (ME); 11. Dubois 1951 (MD); 12. Knight 1951 (BC); 13. Ball 1952 (CO); 14. Rausch 1952b (AK); 15. Sweatman 1952 (Ont); 16. Gilford 1954 (IL); 17. Schad 1954 (Nfld,Que); 18. Senger and Neiland 1955 (OR); 19. Dunagan 1957a (AK), 20. 1957b (AK); 21. Senger and Bates 1957 (UT); 22. Arata 1959 (IL); 23. Anderson and Beaudoin 1966 (PA); 24. Beckett and Gallicchio 1967 (OH); 25. Grundmann and Tsai 1967 (UT); 26. Abram 1969 (MD); 27. Kinsella 1971 (MT); 28. Beverley-Burton and Sweeny 1972 (Ont); 29. Rice and Heck 1975 (OH); 30. Wittrock 1976 (IA); 31. Dyer and Klimstra 1977 (IL); 32. Jilek 1977 (IL); 33. MacKinnon and Burt 1978 (NB); 34. McKenzie and Welch 1979 (Man); 35. Rigby and Threlfall 1981 (Nfld)
- Quinqueserialis zibethica* Gupta 1962  
 Site: duodenum  
 Host: *Ondatra zibethicus*  
 Dist.: Que  
 Record: Gupta 1962a (Que)
- Quinqueserialis* spp.  
 Site: intestine  
 Host: *Marmota monax*

Dist.: WI

Record: Rausch and Tiner 1949

#### Notocotylidae of Undetermined Species

*Monostomum affinis* Leidy, 1858

Site: gall bladder and bile duct

Host: *Ondatra zibethicus*

Dist.: PA

Record: Leidy 1858

#### FAMILY PARAMPHISTOMIDAE

Fischöeder, 1901

*Calicophoron microbothrioides* (Price and McIntosh, 1944) Eduardo, 1983

Syn.: *Paramphistomum microbothrioides*  
Price and McIntosh, 1944

Site: rumen

Host: *Bos taurus*

Dist.: GA

Record: Prestwood et al. 1975

*Chiorchis fabaceus* (Diesing, 1838)

Syn.: *Amphistoma fabaceum* Diesing, 1838

Site: nasal passages, intestine, colon

Host: *Trichechus manatus*

Dist.: FL, PA

Record: Leidy 1890 (PA); Stiles and Hassall 1894a (FL); Canavan 1934 (PA)

Remarks: Leidy (1890) collected specimens from a seacow that died in the Zoological Gardens in 1875. Canavan (1934) obtained specimens from a manatee that died at the Pennsylvania Zoo.

*Paramphistomum cervi* (Zeder, 1790) Fischöeder, 1901

Site: rumen

Hosts: *Alces alces* (1,2,4,5,7,9,10)

*A. a. americana* (3,8)

*Odocoileus virginianus* (6,8)

Dist.: AL, MN, Nfld, Ont, Que, Sask

Records: 1. Fenstermacher and Jellison 1933 (MN); 2. Fenstermacher 1934 (MN); 3.

Wallace 1934 (MN); 4. Fenstermacher 1937

(MN); 5. Peterson 1955 (Ont, Que); 6. Harlow

and Jones 1965 (AL); 7. Threlfall 1967

(Nfld); 8. Dunn 1968 (unspecified); 9.

Lankester et al. 1979 (Ont); 10. Kennedy et al. 1985 (Ont, Sask)

*Paramphistomum liorchis* Fischöeder, 1901

Site: rumen, small intestine

Hosts: *Alces alces* (5)

*Cervus unicolor* (6)

*Odocoileus virginianus* (1,2,6)

*Odocoileus* spp. (3,4)

Dist.: AL, FL, GA, LA, Ont, SC

Records: 1. Dunn 1968 (unspecified); 2.

Prestwood et al. 1970 (AL, FL, GA, LA, SC); 3.

Prestwood et al. 1975 (GA); 4. Walker and

Becklund 1970 (AL); 5. Kennedy et al. 1985

(Ont); 6. Davidson et al. 1987 (FL)

*Paramphistomum* spp.

Site: rumen

Host: *Alces alces*

Dist.: Alta, MN

Record: Loken et al. 1965 (MN); Samuel et al. 1976 (Alta)

*Stichorchis subtriquetrus* (Rudolphi, 1814)

Fischöeder, 1901

Syn.: *Amphistomum subtriquetrum*

Rudolphi, 1819

*Paramphistomum castori* Kofoid and Park, 1937

Site: intestine, cecum

Hosts: *Castor canadensis*

(2,3,6,8,9,10,11,12,13,14,15,16)

*C. c. carolinensis* (4)

*C. c. leucodontus* (5)

*C. c. mexicanus* (7)

*Ondatra zibethicus* (1)

Dist.: AK, Alta, BC, CO, LA, MEXICO, MN, Nfld, NS, Ont, OR, PA, Que, TX

Records: 1. Leidy 1888 (PA); 2. Duff 1914

(Ont, Que); 3. Law and Kennedy 1932 (Ont);

4. Bennett and Humes 1939 (LA); 5. Cowan

1942 (BC); 6. Erickson 1944 (MN); 7.

Caballero 1947 (Mexico); 8. Shaw 1947 (OR);

9. Olsen 1949a (CO); 10. Babero 1953 (AK);

11. Senger and Neiland 1955 (OR); 12.

Choquette and Pimlott 1956 (Nfld); 13.

Dunagan 1957a (AK); 14. Smith and

Archibald 1967 (NS); 15. Fedynich et al.

1986 (TX); 16. Bush and Samuel 1981 (Alta)

*Wardius zibethicus* Barker and East, 1915

Syn.: *Pseudodiscus zibethicus* (Barker and East, 1915) Fukui, 1929

Site: cecum

Hosts: *Ondatra zibethicus*

(1,2,3,4,8,9,10,13,14,15)

*O. z. zibethicus* (4,5,6,7,11,12)

Dist.: IL, Man, MD, ME, MI, NB, NE, NY, OH, Ont, PA

Records: 1. Barker 1915 (NE); 2. Law and

Kennedy 1932 (Ont); 3. Ameel 1942 (MI); 4.

Rausch 1946b (OH); 5. Edwards 1949 (NY);

6. Meyer and Reilly 1950 (ME); 7. Gilford

1954 (IL); 8. Smith 1958 (MI); 9. Murrell 1965 (MI); 10. Anderson and Beaudoin 1966 (PA); 11. Beckett and Gallicchio 1967 (OH); 12. Abram 1969 (MD); 13. Rice and Heck 1975 (OH); 14. MacKinnon and Burt 1978 (NB); 15. McKenzie and Welch 1979 (Man)

*Zygocotyle lunata* (Diesing, 1836)

Site: cecum

Hosts: *Alces alces* (2,3)

*Odocoileus virginianus* (1)

Dist.: Alta, MI

Record: 1. Swanson 1960 (MI); 2. Samuel et al. 1976 (Alta); 3. Stock and Barrett 1983 (Alta)

UNIDENTIFIED PARAMPHISTOMIDAE

Paramphistomidae gen. spp.

Site: rumen

Hosts: *Odocoileus virginianus* (1)

*Ondatra zibethicus obscurus* (2)

Dist.: FL, Nfld

Record: 1. Dinaburg 1939 (FL); 2. Rigby and Threlfall 1981 (Nfld)

ORDER PLAGIORCHIIFORMES

LaRue, 1957

FAMILY ALLASSOGONOPORIDAE Odening, 1964

*Allassogonoporus marginalis* Olivier, 1938

Site: small intestine

Hosts: *Eptesicus fuscus* (8)

*Myotis grisescens* (3,4)

*M. lucifugus* (5,7)

*M. sodalis* (2)

*M. velifer incautus* (3)

*Ondatra zibethicus* (1)

*Tadarida brasiliensis cynocephala* (6)

Dist.: IA, KS, KY, LA, MI, WI

Records: 1. Olivier 1938 (MI); 2. Williams 1962 (KY); 3. Ubelaker 1966 (KS); 4. Nickel and Hansen 1967 (KS); 5. Blankespoor and Ulmer 1970 (IA); 6. Martin 1976 (LA); 7. Coggins et al. 1982 (WI); 8. Lotz and Font 1983 (WI)

*Allassogonoporus vespertilionis* Macy, 1940

Site: intestine

Hosts: *Eptesicus fuscus* (3)

*Myotis californicus caurinus* (1,2)

*M. lucifugus* (3)

Dist.: OR

Records: 1. Macy 1940c, 2. 1947; 3. Knight and Pratt 1955

*Cephalophallus obscurus* Macy and Moore, 1954

Site: intestine

Host: *Mustela vison*

Dist.: MI, OR

Record: 1. Macy and Moore 1954 (OR); 2. Lang and Dronen 1972 (MI)

*Myotitrema asymmetrica* Macy, 1940

Site: intestine

Host: *Myotis lucifugus*

Dist.: MN

Record: Macy 1940a

FAMILY ANENTEROTREMATIDAE

*Anenterotrema freitasi* Caballero, 1964

Site: intestine

Host: *Micronycteris hirsuta*

Dist.: Costa Rica

Record: Caballero 1964b

FAMILY DICROCOELIIDAE Looss, 1899

*Brachylecithum* spp.

Site: bile ducts

Host: *Blarina brevicauda*

Dist.: NC

Record: Miller et al. 1974

*Conspicuum icteridorum* Denton and Byrd, 1951

Syn.: *Quiscalus* spp. Denton and Byrd, 1951

Site: bile ducts

Hosts: *Tadarida brasiliensis cynocephala*

*T. b. mexicana*

Dist.: LA, TX

Record: Martin 1976

*Dicrocoelium dendriticum* (Rudolphi, 1819) Looss, 1899

Site: bile duct, liver

Hosts: *Lepus americanus struthopus* (4)

*Marmota monax rufescens* (2)

*Mustela* spp. (1)

*Odocoileus virginianus* (3)

Dist.: Nfld, NY, PEI

Records: 1. Conklin and Baker 1930 (PEI); 2. Mapes 1950 (NY); 3. Mapes and Baker 1950 (NY); 4. Dodds and Mackiewicz 1961 (Nfld); 5. Dunn 1968 (unspecified)

*Dicrocoelium lasiuri* McIntosh, 1933

Site: bile ducts, gall bladder

- Host: *Nycteris borealis*  
 Dist.: DC  
 Records: 1. McIntosh 1933; 2. McIntosh and McIntosh 1935
- Dicrocoelium rileyi* Macy, 1932  
 Site: bile ducts, gall bladder  
 Hosts: *Eptesicus fuscus* (7)  
     *Myotis velifer incautus* (6)  
     *Nycticeius humeralis* (2)  
     *Tadarida brasiliensis* (4)  
     *T. b. cynocephala* (1,3,8)  
     *T. b. mexicana* (5,6,8)  
 Dist.: IA, KS, LA, NM, OK, TX  
 Records: 1. Macy 1932 (KS,OK); 2. Chandler 1938 (TX); 3. Byrd and Macy 1942 (LA); 4. Jameson 1959 (TX); 5. Cain 1966 (NM); 6. Nickel and Hansen 1967 (KS,OK); 7. Blankespoor and Ulmer 1970 (IA); 8. Martin 1976 (LA,TX)
- Dictyonograpus chamelensis* Lamothe-Argumedo, 1980  
 Site: bile ducts  
 Host: *Peromyscus banderanus banderanus*  
 Dist.: Mexico  
 Record: Lamonthe-Argumedo 1980
- Eurytrema allentoshi* (Foster, 1939)  
 Syn.: *Platynosomum allentoshi* Foster, 1939  
 Site: bile ducts, gall bladder  
 Host: *Caluromys derbianus pallidus* (1)  
     *Didelphis virginiana* (2)  
 Dist.: Panama, TX  
 Record: 1. Foster 1939 (Panama); 2. Denton 1944a (TX)
- Eurytrema komareki* McIntosh, 1939  
 Site: stomach  
 Host: *Peromyscus gossypinus gossypinus*  
 Dist.: GA  
 Record: McIntosh 1939
- Eurytrema procyonis* Denton, 1942  
 Syn.: *Eurytrema vulpis* Stunkard, 1947  
 Site: pancreatic ducts, small intestine  
 Hosts: *Canis latrans x Canis rufus* (12)  
     *Procyon lotor* (2,3,4,5,6,7,8,9,11,12,13)  
     *P. l. lotor* (1)  
     *Urocyon cinereoargenteus* (6,10)  
     *Vulpes vulpes* (4)  
     Fox (14)  
 Dist.: CT, GA, LA, MD, NC, NY, TN, TX, VA  
 Records: 1. Chandler 1942a (TX); 2. Denton 1942 (TX); 3. 1944b (TX); 4. Stunkard 1947 (NY); 5. Penner et al. 1954 (CT); 6. Herman et al. 1957 (MD); 7. Babero and Shepperson 1958 (GA); 8. Sawyer 1958 (GA); 9. Harkema and Miller 1964 (NC,VA); 10. Miller and Harkema 1968 (NC); 11. Bafundo et al. 1980 (TN); 12. Custer and Pence 1981 (TX); 13. Schaffer et al. 1981 (VA); 14. Foley et al. 1987 (NY)
- Lyperosomum intermedium* Denton and Kinsella, 1972  
 Site: pancreas  
 Host: *Oryzomys palustris*  
 Dist.: FL, GA  
 Record: Denton and Kinsella 1972
- Lyperosomum sinuosum* Travassos, 1917  
 Site: pancreatic ducts, small intestine  
 Hosts: *Procyon lotor* (2,3)  
     *P. l. solutus* (1)  
 Dist.: SC, TE  
 Records: 1. Harkema and Miller 1962 (SC), 2. 1964 (SC); 3. Bafundo et al. 1980 (TE)
- Platynosomum beltrani* Caballero and Caballero, 1969  
 Site: intestine  
 Host: *Tadarida brasiliensis mexicana*  
 Dist.: Mexico  
 Record: Caballero and Caballero 1969b
- Robertdigenea dollfusi* Caballero and Caballero, 1969  
 Site: bile ducts and gall bladder  
 Host: *Procyon lotor crassidens*  
 Dist.: Costa Rica  
 Record: Caballero and Caballero 1969a
- Zonorchis komareki* (McIntosh, 1939) Travassos, 1944  
 Site: bile ducts  
 Hosts: *Oryzomys palustris* (1)  
     *Reithrodontomys humulis* (2)  
 Dist.: GA, LA  
 Records: 1. Lumsden and Zischke 1961 (LA); 2. McKeever 1971 (GA)
- FAMILY LECITHODENDRIIDAE  
 Odhner, 1910
- Acanthatrium alicatai* Macy, 1940  
 Site: intestine  
 Host: *Eptesicus fuscus*  
 Dist.: DC  
 Record: Macy 1940b
- Acanthatrium amphidymum* Cheng, 1957  
 Site: small intestine

- Host: *Eptesicus fuscus fuscus*  
Dist.: VA  
Record: Cheng 1957, 1959
- Acanthatrium beuschleini* Cheng, 1959  
Site: small intestine  
Hosts: *Eptesicus fuscus fuscus*  
*Myotis lucifugus*  
Dist.: VA  
Record: Cheng 1959
- Acanthatrium eptesici* Alicata, 1932  
Site: small intestine  
Hosts: *Eptesicus fuscus* (1,2,5,6)  
*E. f. fuscus* (3)  
*Nycteris borealis* (4)  
Dist.: BC, DC, IA, MN, VA, WI  
Records: 1. Alicata 1932 (DC); 2. Macy 1940b (MN); 3. Cheng 1959 (VA); 4. Blankespoor and Ulmer 1970 (IA); 5. Webster and Casey 1973 (BC); 6. Lotz and Font 1983 (WI)
- Acanthatrium microcanthum* Macy, 1940  
Site: small intestine  
Host: *Eptesicus fuscus*  
Dist.: MN, WI  
Records: Macy 1940b (MN); Lotz and Font 1983 (WI)
- Acanthatrium nycteridis* Faust, 1919  
Site: small intestine  
Hosts: *Eptesicus fuscus fuscus* (3)  
*Lasionycteris noctivagans* (4)  
*Myotis lucifugus lucifugus* (2)  
*Nycteris borealis borealis* (1)  
*Tadarida brasiliensis mexicana* (5)  
Dist.: BC, IL, MA, TX, VA  
Records: 1. Faust 1919 (IL); 2. Rankin 1946 (MA); 3. Cheng 1959 (VA); 4. Webster and Casey 1973 (BC); 5. Martin 1976 (TX)
- Acanthatrium oligacanthum* Cheng, 1957  
Site: small intestine  
Hosts: *Eptesicus fuscus* (2)  
*E. f. fuscus* (1)  
Dist.: VA, WI  
Records: 1. Cheng 1957 (VA); 2. Lotz and Font 1983 (WI)
- Acanthatrium oregonense* Macy, 1939  
Site: intestine  
Hosts: *Myotis californicus caurinus* (1,2)  
*M. evotis evotis* (1,2)  
*M. lucifugus* (3)  
Dist.: OR
- Records: 1. Macy 1939, 2. 1947; 3. Knight and Pratt 1955
- Acanthatrium pipistrelli* Macy, 1940  
Syn.: *Acanthatrium lunatum* Williams, 1960  
Site: small intestine  
Hosts: *Eptesicus fuscus* (3,4)  
*E. f. fuscus* (2)  
*Myotis sodalis* (2)  
*Nycteris borealis* (3)  
*Pipistrellus subflavus* (1)  
Dist.: IA, KY, MN, OH, WI  
Records: 1. Macy 1940b (MN); 2. Williams 1962 (KY); 3. Blankespoor and Ulmer 1970 (IA); 4. Lotz and Font 1983 (MN, WI)
- Acanthatrium umbraculatum* Christian, 1972  
Site: small intestine  
Host: *Myotis lucifugus*  
Dist.: OH  
Record: Christian 1972
- Acanthatrium* spp.  
Site: intestine  
Host: *Myotis grisescens*  
Dist.: KS  
Record: Nickel and Hansen 1967
- Castroia silvai* Travassos, 1928  
Site: intestine  
Host: *Micronycteris hirsuta*  
Dist.: Costa Rica  
Record: Caballero and Gei 1963
- Glyptoporus noctophilus* Macy, 1936  
Site: small intestine  
Hosts: *Eptesicus fuscus* (2)  
*Myotis lucifugus* (1)  
Dist.: MN  
Records: 1. Macy 1936a; 2. Lotz and Font 1983
- Gyrabascus brevigastrus* Macy, 1935  
Site: small intestine  
Host: *Myotis lucifugus*  
Dist.: WI  
Record: Macy 1935a
- Lecithodendrium anticum* Stafford, 1905  
Site: intestine  
Host: *Myotis lucifugus*  
Dist.: Not specified  
Record: Stafford 1905
- Lecithodendrium posticum* Stafford, 1905  
Site: intestine  
Host: *Myotis lucifugus*

Dist.: Not specified  
Record: Stafford 1905

*Lecithodendrium* spp.

Site: small intestine  
Hosts: *Eptesicus fuscus fuscus* (1)  
*Nycteris intermedia floridana* (2)  
Dist.: FL, VA  
Records: 1. Cheng 1959 (VA); 2. Loftin 1960 (FL)

*Limatulum costarricensis* (Caballero y Brenes, 1957) Caballero, 1964

Site: intestine  
Host: *Myotis nigricans nigricans*  
Dist.: Panama  
Records: Caballero 1964a

*Limatulum gastroides* Macy, 1935

Site: stomach, intestine  
Hosts: *Myotis californicus caurinus* (3)  
*M. keenii* (7)  
*M. lucifugus* (1,5,8)  
*M. l. lucifugus* (2)  
*M. sodalis* (4)  
*Nycteris cinerea* (6)  
Dist.: BC, IA, KY, MA, MN, OR, WI  
Records: 1. Macy 1935b (MN,WI); 2. Rankin 1946 (MA); 3. Macy 1947 (OR); 4. Williams 1962 (KY); 5. Blankespoor and Ulmer 1970 (IA); 6. Webster and Casey 1973 (BC); 7. Coggins et al. 1981 (WI); 8. 1982 (WI)

*Limatulum istmicus* Caballero 1964

Site: intestine  
Host: *Micronycteris hirsuta*  
Dist.: Costa Rica  
Record: Caballero 1964b

*Limatulum limatulum* (Braun, 1900) Travassos, 1921

Syn.: *Distomum limatulum* Braun, 1900  
Site: intestine  
Host: *Natalus stramineus mexicanus*  
Dist.: Mexico Record: Caballero 1943a

*Limatulum mcdanieli* Brooks and Coggins, 1983

Site: stomach  
Host: *Myotis lucifugus*  
Dist.: WI  
Record: Brooks and Coggins 1983

*Limatulum oklahomensis* Macy, 1932

Site: intestine  
Hosts: *Myotis grisescens* (2)  
*Tadarida brasiliensis cynocephala* (1)  
*T. b. mexicana* (3)  
Dist.: KS, OK, TX

Records: 1. Macy 1932 (KS,OK); 2. Ubelaker 1966 (KS); 3. Martin 1976 (TX)

*Limatulum* spp.

Site: stomach  
Host: *Myotis lucifugus*  
Dist.: WI  
Record: Coggins et al. 1982

*Maxbraunium tubiporum* (Braun, 1900) Caballero and Ma, 1942

Syn.: *Distomum tubiporum* Braun, 1900  
Site: intestine  
Hosts: *Nycteris borealis*  
*N. b. borealis*  
*Pteronotus parnellii rubiginosus*  
Dist.: Mexico  
Record: Caballero and Cerecero 1942

*Ochoterenatrema breckenridgei* (Macy, 1936)

Syn.: *Lecithodendrium breckenridge* Macy, 1936  
Site: small intestine  
Host: *Eptesicus fuscus* (2)  
*Pipistrellus* sp. (1)  
Dist.: MN  
Record: 1. Macy 1936c; 2. Lotz and Font 1983

*Ochoterenatrema diminutum* (Chandler, 1938)

Syn.: *Limatulum diminutum* Chandler, 1938  
*Ochoterenatrema caballeroi* Freitas, 1957  
*Prosthodendrium diminutum* Chandler, 1938  
Site: small intestine  
Host: *Eptesicus fuscus* (4)  
*Myotis nigricans nigricans* (2)  
*Nycticeius humeralis* (1,3)  
Dist.: IA, Panama, TX, WI  
Records: 1. Chandler 1938 (TX); 2. Caballero 1964 (Panama); 3. Ubelaker and Kunz 1971 (IA); 4. Lotz and Font 1983 (WI)

*Ochoterenatrema labda* Caballero, 1943

Site: small intestine  
Hosts: *Myotis nigricans nigricans* (3)  
*Natalus stramineus mexicanus* (1)  
*Tadarida brasiliensis* (1,2)  
*T. b. cynocephala* (5)  
*T. b. mexicana* (4,5)  
Dist.: LA, Mexico, NM, Panama, TX  
Records: 1. Caballero 1943a (Mexico); 2. Jameson 1959 (TX); 3. Caballero 1964a (Panama); 4. Cain 1966 (NM); 5. Martin 1976 (LA,TX)

- Ochoterenatrema travassosi* (Macy, 1938)  
 Syn.: *Prosthodendrium travassosi* Macy, 1938  
 Site: small intestine  
 Host: *Eptesicus fuscus*  
 Dist.: MN, WI  
 Records: Macy 1938 (MN); Lotz and Font 1983 (WI)
- Ototrema schildti* Font, 1978  
 Site: intestine  
 Hosts: *Myotis keenii* (2)  
       *M. lucifugus* (1,3)  
 Dist.: WI  
 Records: 1. Font 1978; 2. Coggins et al. 1981, 3. 1982
- Paralecithodendrium carlsbadensis* Cain, 1966  
 Site: small intestine  
 Host: *Tadarida brasiliensis mexicana*  
 Dist.: NM  
 Record: Cain 1966
- Paralecithodendrium chilostomum* (Mehlis, 1831)  
 Syn.: *Prosthodendrium oligolecithum*  
       Manter and Dubois, 1945  
 Site: small intestine  
 Host: *Eptesicus fuscus* (2)  
       *Myotis californicus* (1)  
 Dist.: NE, WI  
 Records: 1. Manter and Debus 1945 (NE); 2. Lotz and Font 1983 (WI)
- Paralecithodendrium emollidum* (Caballero, 1943)  
 Syn.: *Prosthodendrium emollidum*  
       Caballero, 1943  
 Site: intestine  
 Host: *Natalus stramineus mexicanus*  
 Dist.: Mexico  
 Record: Caballero 1943a
- Paralecithodendrium macnabi* (Macy, 1936)  
 Syn.: *Prosthodendrium duboisi* Neiland, 1962  
       *Prosthodendrium macnabi* Macy, 1936  
       *Prosthodendrium mizellei* Seamster and Stevens, 1948  
 Site: small intestine  
 Host: *Eptesicus fuscus* (1,2,3,5,6)  
       *Lasionycteris noctivagans* (6)  
       *Myotis lucifugus* (5,7)  
       *Nycteris cinerea* (4)  
 Dist.: AK, BC, IN, Mexico, MN, WI  
 Records: 1. Macy 1936a (MN), 2. 1936b (MN); 3. Seamster and Stevens 1948 (IN); 4. Caballero and Zerecero 1951 (Mexico); 5. Neiland 1962 (AK); 6. Webster and Casey 1973 (BC); 7. Lotz and Font 1983 (MN, WI)
- Paralecithodendrium naviculum* (Macy, 1936) Lotz and Font 1983  
 Syn.: *Limatulium scabrum* Caballero, 1940  
       *Prosthodendrium naviculum*  
       Macy, 1936  
       *Prosthodendrium paeminosum*  
       Caballero, 1943  
       *Prosthodendrium scabrum* (Caballero, 1940) Caballero, 1943  
       *Prosthodendrium tetralobulatum*  
       Caballero, 1943  
 Site: small intestine  
 Host: *Balantiopteryx plicata* (5)  
       *Eptesicus fuscus* (1,2,12)  
       *Mustela vison* (10)  
       *Myotis sodalis* (8)  
       *M. volans longicrus* (11)  
       *Nycteris cinerea* (6)  
       *N. intermedia floridana* (4)  
       *Procyon lotor* (9)  
       *P. l. lotor* (7)  
       *Tadarida brasiliensis* (3)  
 Dist.: BC, GA, KY, Mexico, MI, MN, MS, OH, WI  
 Records: 1. Macy 1936a (MN), 2. 1936b (MN); 3. Caballero 1940 (Mexico); 4. Byrd and Macy 1942 (MS); 5. Caballero 1943b (Mexico); 6. Caballero and Zerecero 1951 (Mexico); 7. Williams 1961 (OH); 8. Williams 1962 (KY); 9. Harkema and Miller 1964 (GA); 10. Lang and Dronen 1972 (MI); 11. Webster and Casey 1973 (BC); 12. Lotz and Font 1983 (MN, WI)
- Paralecithodendrium nokomis* (Macy, 1937)  
 Syn.: *Prosthodendrium nokomis*, Macy, 1937  
 Site: small intestine  
 Host: *Eptesicus fuscus* (2)  
       *Nycteris borealis* (1)  
 Dist.: IA, WI  
 Records: 1. Blankespoor and Ulmer 1970 (IA); 2. Lotz and Font 1983 (WI)
- Paralecithodendrium swansoni* (Macy, 1936) Lotz and Font, 1983  
 Syn.: *Prosthodendrium swansoni* Macy, 1936  
 Site: small intestine  
 Host: *Eptesicus fuscus* (5,8)  
       *Myotis grisescens* (4)  
       *M. lucifugus* (1,2,5,6,7)  
       *Nycteris borealis* (5)  
       *Tadarida brasiliensis cynocephala* (3)  
 Dist.: BC, IA, KS, LA, MN, WI

Records: 1. Macy 1936a (MN), 2. 1936b (MN); 3. Byrd and Macy 1942 (LA); 4. Nickel and Hansen 1967 (KS); 5. Blankespoor and Ulmer 1970 (IA); 6. Webster and Casey 1973 (BC); 7. Coggins et al. 1982 (WI); 8. Lotz and Font 1983 (MN,WI)

*Paralecithodendrium transversum* (Byrd and Macy, 1942) Lotz and Font, 1983

Syn.: *Prosthodendrium transversum* Byrd and Macy, 1942

*Prosthodendrium volaticum*  
Blankespoor and Ulmer, 1972

Site: small intestine

Host: *Eptesicus fuscus* (4,8)

*Myotis keenii* (5,6)

*M. sodalis* (2)

*Nycteris borealis* (1,3)

*N. b. borealis* (1)

Dist.: IA, KY, MN, TN, WI

Records: 1. Byrd and Macy 1942 (TN); 2. Williams 1962 (KY); 3. Kunz 1968 (IA); 4. Blankespoor and Ulmer 1972 (IA); 5. Blankespoor and Szymusiak 1974 (IA); 6. Coggins et al. 1981 (WI), 7. 1982 (WI); 8. Lotz and Font 1983 (MN,WI)

*Prosthodendrium alaskensis* Neiland, 1962

Site: intestine

Host: *Myotis lucifugus*

Dist.: AK

Record: Neiland 1962

*Prosthodendrium longiforme* Bhalerao, 1926

Site: intestine

Host: *Eptesicus fuscus fuscus*

Dist.: KS

Record: Nickel and Hansen 1967

*Prosthodendrium silvai* (Travassos, 1928)

Site: intestine

Host: *Nycteris cinerea*

Dist.: BC

Record: Webster and Casey 1973

*Prosthodendrium singularium* Byrd and Macy, 1942

Site: small intestine

Host: *Nycteris intermedia floridana*

Dist.: MS

Record: Byrd and Macy 1942

*Prosthodendrium* spp.

Site: intestine

Hosts: *Eptesicus fuscus* (1,2)

*Lasionycteris noctivagans* (2)

*Myotis lucifugus* (2)

*Nycteris borealis* (1)

*N. cinerea* (2)

Dist.: BC, IA

Record: 1. Blankespoor and Ulmer 1970 (IA); 2. Webster and Casey 1973 (BC)

*Tremajoannes buckleyi* Saoud, 1964

Site: small intestine

Hosts: *Tadarida brasiliensis mexicana*

Dist.: NM

Record: Cain 1966 (NM)

## UNIDENTIFIED LECITHODENDRIIDAE

Lecithodendriidae gen. spp.

Site: intestine

Host: *Myotis californicus caurinus*

Dist.: OR

Record: Macy 1947

## FAMILY MICROPHALLIDAE Ward, 1901

*Carneophallus turgidus* Leigh, 1958

Site: small intestine

Hosts: *Procyon lotor* (1,2,4,5)

*P. l. litoreus* (6)

*P. l. solutus* (3)

Dist.: FL, GA, NC, SC, TX

Records: 1. Leigh 1958 (FL); 2. Jordan and Hayes 1959 (GA); 3. Harkema and Miller 1962 (SC), 4. 1964 (NC,SC); 5. Schaffer et al. 1981 (GA,TX); 6. Price and Harman 1983 (GA)

*Gynaecotyla adunca* (Linton, 1905)

Site: small intestine

Hosts: *Procyon lotor* (2,3)

*P. l. solutus* (1)

Dist.: GA, NC, SC

Records: 1. Harkema and Miller 1962 (SC), 2. 1964 (NC,SC); 3. Schaffer et al. 1981 (GA)

*Maritrema prolixum* Caballero and Gei, 1961

Site: intestine

Host: *Metachirops opossum fuscogriseus*

Dist.: Costa Rica

Record: Caballero and Gei 1961

*Maritreminoides nettai* (Gower, 1936) Rankin, 1939

Site: small intestine

Hosts: *Didelphis virginiana* (2)

*Procyon lotor* (1,3)

Dist.: GA, MN, NC, SC

Records: 1. Harkema and Miller 1964 (GA,NC,SC); 2. Miller and Harkema 1970 (NC); 3. Larson and Scharf 1975 (MN)

*Maritreminoides* spp.

Site: small intestine

Hosts: *Procyon lotor* (2)

*P. l. solutus* (1)

Dist.: NC, SC

Records: 1. Harkema and Miller 1962 (SC), 2. 1964 (NC,SC)

*Microphallus aspalacis* Rausch, 1962

Site: small intestine

Host: *Neurotrichus gibbsii*

Dist.: OR

Record: Rausch 1962

*Microphallus enhydrae* Rausch and Locker, 1951

Site: small intestine

Host: *Enhydra lutris*

Dist.: AK

Record: Rausch and Locker 1951

*Microphallus pirum* (Afanas'ev, 1941)

Site: intestine

Host: *Enhydra lutris*

Dist.: AK

Record: Rausch 1953

*Microphallus* spp.

Site: small intestine

Hosts: *Procyon lotor* (1)

*P. l. hirtus* (2)

Dist.: OH, Sask

Record: 1. Rausch 1946a (OH); 2. Hoberg and McGee 1982 (Sask)

*Pseudomaritrema beolopolskoi* Caballero 1964

Site: intestine

Host: *Micronycteris hirsuta*

Dist.: Costa Rica

Record: Caballero 1964b

*Pseudospelotrematoides* spp.

Site: small intestine

Host: *Sus scrofa*

Dist.: GA

Record: Babero et al. 1959

FAMILY NANOPHYETIDAE Dollfus, 1939

*Nanophyetus salmincola* (Chapin, 1926) Chapin, 1927

Syn.: *Nanophyes salmincola* Chapin, 1926

Site: small intestine

Hosts: *Canis latrans* (4)

*C. l. lestes* (1)

*Felis concolor* (6)

*Lutra canadensis* (4)

*Lynx rufus* (4)

*L. r. fasciatus* (1)

*Mustela erminea* (4)

*M. vison* (2,3,4)

*Procyon lotor* (4)

*P. l. pacificus* (1)

*Rattus norvegicus* (4)

*Spilogale putorius* (4)

*Vulpes vulpes* (4)

*Zalophus californianus* (5)

Dist.: Ont, OR, WA

Records: 1. Cram 1926 (WA); 2. Anonymous 1930 (Ont); 3. Senger and Neiland 1955 (OR); 4. Schlegel et al. 1968 (OR,WA); 5. Stroud and Dailey 1978 (OR); 6. Kistner et al. 1979 (OR)

FAMILY PARAGONIMIDAE Dollfus, 1939

*Paragonimus kellicotti* (Ward, 1908)

Site: lungs

Hosts: *Canis latrans* (19,20)

*Didelphis marsupialis* (8,17)

*Lynx rufus* (7,8,14,21)

*Mephitis mephitis* (8,15,16,19,20)

*Mustel vison* (1,2,3,4,5,9,11,12,19,20)

*Ondatra zibethicus* (18)

*Procyon lotor* (8,10)

*Vulpes vulpes* (6,19,20)

*Mink* (13)

Dist.: GA, OH, Ont, KY, MD, MI, MN, NC, WI, WV

Records: 1. Ameel 1931 (MI), 2. 1934 (WI); 3. La Rue and Ameel 1937 (MI,OH); 4. Sealander 1943 (MI); 5. Erickson 1946 (MN), 6. 1950 (MN); 7. Jordan and Byrd 1958 (GA); 8. McKeever 1958 (GA); 9. Gesinski et al. 1964 (OH); 10. Harkema and Miller 1964 (GA,NC); 11. Miller and Harkema 1964 (NC); 12. Beckett and Gallicchio 1966 (OH); 13. Fyvie 1966 (Ont); 14. Miller and Harkema 1968 (NC); 15. Bemrick and Schlotthauer 1971 (MN); 16. Alexander et al. 1972 (MD); 17. Feldman et al. 1972 (NC); 18. Harley 1972 (KY); 19. Presidente and Ramsden 1975 (Ont); 20. Ramsden and Presidente 1975 (Ont); 21. Watson et al. 1981 (GA,WV)

*Paragonimus mexicanus* Miyazaki and Ishii, 1968

Syn.: *Paragonimus ecuadoriensis*

*Paragonimus inca*

*Paragonimus peruvianus* Miyazaki,  
Ibanez, and Miranda, 1969

Site: lungs

Hosts: *Didelphis marsupialis* (1,2)

*D. virginiana californica* (3,4,5,6)

*Felis pardalis* (2)

*Metachirops opossum fuscogriseus* (2)

*M. o. pallidus* (4,6,7)

*Procyon lotor* (2)

*Urocyon cinereoargenteus* (2)

Dist.: Costa Rica, Mexico

Records: 1. Miyazaki and Ishii 1968

(Mexico); 2. Brenes et al. 1980 (Costa Rica);

3. Miyazaki, Kifune and Lamothe-Argumedo

1980 (Mexico); 4. Lamothe-Argumedo 1981

(Mexico); 5. Lamothe-Argumedo et al. 1981

(Mexico); 6. Lamothe-Argumedo 1984

(Mexico); 7. Lamothe-Argumedo et al. 1985

(Mexico)

Remarks: Brenes et al. (1980) considered *P.*  
*peruvianus* a synonym of *P. mexicanus*.

Brenes et al. (1980) redescribed the material  
he called and reported in 1968 as

*Paragonimus* sp.. See supplementary  
reading for Brenes et al. (1968).

*Paragonimus rudis* (Diesing, 1850) Braun, 1899

Site: lungs

Hosts: *Didelphis marsupialis* (4)

*D. virginiana* (1)

*Felis onca* (3)

*Mephitis macroura macroura* (1)

*Metachirops opossum* (4)

*M. o. fuscogriseus* (2)

*Nasua nasua* (4)

*Procyon lotor* (3)

Dist.: Costa Rica, GA, Guatemala, NC,  
Panama

Records: 1. Caballero 1946 (Guatemala); 2.

Caballero and Gei 1961 (Costa Rica); 3.

Harkema and Miller 1964 (GA, NC); 4.

Thatcher 1967 (Panama)

*Paragonimus westermani* (Kerbert, 1878)

Site: lungs

Host: *Didelphis virginiana*

Dist.: TN

Records: Byrd and Reiber 1942a, 1942b;

Byrd, Reiber, et al. 1942

*Paragonimus* spp.

Site: lungs

Hosts: *Didelphis marsupialis* (5,6)

*Felis onca* (7)

*F. pardalis* (7)

Felidae gen. spp. (7)

*Mustela vison* (2)

*Ondatra zibethicus* (1)

*Procyon lotor lotor* (4)

Mink (3)

Dist.: Belize, Canada, Mexico, MI, Ont

Records: 1. Ameel 1932 (MI); 2. Swales 1933

(Ont); 3. Cameron 1937b (Canada); 4.

Rausch and Tiner 1949 (MI); 5. Mazzotti and

Miyazaki 1965 (Mexico); 6. Miyazaki and

Ishii 1968 (Mexico); 7. Patton et al. 1986

(Belize)

Remarks: Raush and Tiner (1949) considered

*P. l. lotor* to be an accidental host for

*Paragonimus* spp.

#### FAMILY PLAGIORCHIIDAE Ward, 1917

*Neoglyphe locellus* (Kossacks, 1910)

Syn.: *Opisthioglyphe locellus* Kossacks, 1910

Site: intestine

Hosts: *Sorex cinereus*

*S. palustris*

*S. vagrans*

Dist.: CO

Records: Leiby 1961

*Neoglyphe soricis* (Pojmanska, 1957)

Site: intestine

Hosts: *Sorex cinereus*

*S. palustris*

*S. vagrans*

Dist.: MT

Record: Hendricks 1973

*Plagiorchis elegans* (Rudolphi, 1802)

Site: intestine

Hosts: *Alopex lagopus* (2)

*Procyon lotor hirtus* (1)

*Vulpes vulpes* (2)

Dist.: AK, GD, Sask

Record: 1. Hoberg and McGee 1982 (Sask); 2.

Rausch et al. 1983 (AK, GD)

*Plagiorchis massino* Petrov and Tikhonov, 1927

Site: small intestine

Host: *Vulpes vulpes alascensis*

Dist.: AK

Record: Babero and Rausch 1952

*Plagiorchis micracanthos* Macy, 1932

Syn.: *Plagiorchis micracanthum* Macy, 1931

Site: intestine

Hosts: *Eptesicus fuscus* (1)

*Myotis californicus* (2)

*M. grisescens* (4)

*M. lucifugus* (1,7)

*M. l. occultus* (6)

- M. sodalis* (3)  
*Pipistrellus hesperus* (7)  
*P. subflavus subflavus* (5)  
 Dist.: KS, KY, MN, NE, NM, NV  
 Records: 1. Macy 1932 (MN); 2. Manter and Debus 1945 (NE); 3. Williams 1962 (KY); 4. Ubelaker 1966 (KS); 5. Nickel and Hansen 1967 (NE); 6. Cain and Studier 1972 (NM), 7. 1974 (NM,NV)
- Plagiorchis muris* (Tanabe, 1922) Yamaguti, 1933  
 Site: small intestine  
 Hosts: *Mephitis mephitis* (3)  
       *Microtus pennsylvanicus* (2)  
       *Natalus stramineus mexicanus* (1)  
       *Procyon lotor* (5)  
       *Sigmodon hispidus* (4)  
 Dist.: Mexico, ND, Nfld, Que, TX  
 Records: 1. Caballero 1943a (Mexico); 2. Schad 1954 (Nfld, Que); 3. Dyer 1970 (ND); 4. Rodenberg and Pence 1978 (TX); 5. Schaffer et al. 1981 (TX)
- Plagiorchis noblei* Fedorova, 1969  
 Site: intestine  
 Host: *Ondatra zibethicus*  
 Dist.: Man  
 Record: McKenzie and Welch 1979
- Plagiorchis proximus* Barker, 1915  
 Site: duodenum, small intestine  
 Hosts: *Glaucmys sabrinus* (23)  
       *Mustela vison* (2,3)  
       *Ondatra zibethicus*  
       (1,3,4,5,6,11,13,14,17,18,19,22)  
       *O. z. obscurus* (2,3)  
       *O. z. osoyoensis* (12,21)  
       *O. z. zibethicus* (8,9,10,15,20)  
       *Spermophilus franklinii* (23)  
       *S. richardsonii* (7,23)  
       *Tamiasciurus hudsonicus* (23)  
       *Zapus hudsonius* (16)  
 Dist.: AK, BC, CO, IL, MA, Man, ME, MI, NB, NE, Nfld, NY, OH, Ont, PA, Que, Sask, UT, WI  
 Records: 1. Barker 1915 (NE); 2. Anonymous 1930 (Ont); 3. Law and Kennedy 1932 (Ont); 4. Ameel 1942 (MI); 5. Rankin 1946 (MA); 6. Rausch 1946b (OH); 7. Rausch and Tiner 1948 (Man); 8. Edwards 1949 (NY); 9. Rausch and Tiner 1949 (WI); 10. Meyer and Reilly 1950 (ME); 11. Knight 1951 (BC); 12. Ball 1952 (CO); 13. Rausch 1952b (AK); 14. Sweatman 1952 (Ont); 15. Gilford 1954 (IL); 16. Schad 1954 (Nfld,Que); 17. Dunagan 1957a (AK), 18. 1957b (AK); 19. Anderson and Beaudoin 1966 (PA); 20. Beckett and Gallicchio 1967 (OH); 21. Grundmann and Tsai 1967 (UT); 22. MacKinnon and Burt 1978 (NB); 23. McGee 1980 (Sask); 24. Rigby and Threlfall 1981 (Nfld)
- Plagiorchis vespertilionis* (Mueller, 1784) Braun, 1900  
 Site: small intestine  
 Hosts: *Eptesicus fuscus* (5,6)  
       *E. f. fuscus* (4)  
       *Lasionycteris noctivagans* (6)  
       *Myotis californicus* (6)  
       *M. keenii* (7,9)  
       *M. lucifugus* (1,5,6,7,10)  
       *M. l. lucifugus* (4)  
       *M. volans longicrus* (6)  
       *Nycteris cinerea* (5,6)  
       *Tadarida brasiliensis* (2,3)  
       *T. b. cynocephala* (8)  
       *T. b. mexicana* (8)  
 Dist.: BC, IA, KS, LA, Mexico, NE, TX, WI  
 Records: 1. Stafford 1905 (not specified); 2. Caballero 1940 (Mexico), 3. 1943a (Mexico); 4. Nickel and Hansen 1967 (KS,NE); 5. Blankespoor and Ulmer 1970 (IA); 6. Webster and Casey 1973 (BC); 7. Blankespoor and Szymusiak 1974 (IA); 8. Martin 1976 (LA,TX); 9. Coggins et al. 1981 (WI), 10. 1982 (WI)
- Plagiorchis vespertilionis parorchis* Macy, 1960  
 Site: small intestine  
 Host: *Myotis lucifugus alascensis*  
 Dist.: WA  
 Record: Macy 1960 (WA)
- Plagiorchis* spp.  
 Site: small intestine  
 Hosts: *Aello megalophylla* (4)  
       *Clethrionomys gapperi* (3)  
       *C. rutilus dawsoni* (2)  
       *Eptesicus fuscus* (6)  
       *Lasionycteris noctivagans* (6)  
       *Myotis lucifugus* (5)  
       *Nycticeius humeralis* (1)  
 Dist.: AK, BC, Nfld, Que, TN, TX  
 Records: 1. Byrd and Macy 1942 (TN); 2. Rausch 1952b (AK); 3. Schad 1954 (Nfld,Que); 4. Jameson 1959 (TX); 5. Neiland 1962 (AK); 6. Webster and Casey 1973 (BC)
- FAMILY PROSTHOGONIMIDAE Luhe, 1909
- Mediagonimus ovlacus* Woodhead and Malewitz, 1936

Site: bile ducts, beneath liver capsule  
Hosts: *Microtus pennsylvanicus*  
*pennsylvanicus* (1,2)  
*Ondatra zibethicus zibethicus* (3)  
Dist.: MI, OH  
Records: 1. Woodhead and Malewitz 1936  
(MI); 2. Rausch and Tiner 1949 (MI); 3.  
Beckett and Gallicchio 1967 (OH)

#### FAMILY TELORCHIIDAE Nicoll, 1924

##### *Telorchis* spp.

Site: small intestine  
Host: *Lutra canadensis*  
Dist.: AL  
Record: Fleming et al. 1977

#### FAMILY TROGLOTREMATIDAE Braun, 1915

##### *Sellacotyle vitellosa* Sogandares-Bernal, 1961

Site: small intestine  
Host: *Mustela vison vulgivaga*  
Dist.: LA  
Record: Sogandares-Bernal 1961

##### *Troglorema mustelae* Wallace, 1932

Syn.: *Sellacotyle mustelae* Wallace, 1934  
Site: small intestine  
Hosts: *Mustela vison* (1,2,3,6)  
*Procyon lotor* (4,5)  
*Urocyon cinereoargenteus* (7)  
Dist.: GA, MN, NC, SC, VA  
Records: 1. Wallace 1932 (MN); 2. Wallace  
1935 (MN); 3. Erickson 1946 (MN); 4.  
Sawyer 1958 (GA); 5. Harkema and Miller  
1964 (GA,NC,SC,VA); 6. Miller and  
Harkema 1964 (NC); 7. 1968 (GA)

##### *Xiphidiotrema lockerae* Senger, 1953

Site: small intestine  
Hosts: *Sorex bendirii palmeri*  
*S. palustris navigator*  
*S. vagrans permiliensis*  
Dist.: MT, OR  
Record: Senger 1953

#### FAMILY UROTREMATIDAE Poche, 1926

##### *Urotrema scabridum* (Braun, 1900) Caballero, 1942

Site: small intestine  
Hosts: *Eptesicus nilssoni* (2)  
*Myotis grisescens* (3,4)  
*M. keenii* (7)

*M. lucifugus* (5,8)  
*Natalus stramineus mexicanus* (1)  
*Tadarida brasiliensis* (1)  
*T. b. cynocephala* (6)  
*T. b. mexicana* (6)

Dist.: Costa Rica, IA, KS, LA, Mexico, TX,  
WI

Records: 1. Caballero 1942 (Mexico); 2.  
Caballero et al. 1957 (Costa Rica); 3.  
Ubelaker 1966 (KS); 4. Nickel and Hansen  
1967 (KS); 5. Blankespoor and Ulmer 1970  
(IA); 6. Martin 1976 (LA,TX); 7. Coggins et  
al. 1981 (WI), 8. 1982 (WI)

Remarks: *Eptesicus propinguus* Peters, 1872  
is regarded as a synonym of *Eptesicus*  
*nilssoni* (Keyserling and Blasius, 1839) but  
this species does not occur in the New World  
(Hall 1981). Therefore, the host record is  
uncertain.

##### *Urotrema shillingeri* Price, 1931

Site: small intestine  
Hosts: *Nycticeius humeralis* (2)  
*Ondatra zibethicus* (1)  
*O. z. macrodon* (3)

Dist.: MD, TX

Records: 1. Price 1931b (MD); 2. Chandler  
1938 (TX); 3. Penner 1941 (MD)

## ORDER STRIGEIFORMES

### LaRue, 1926

#### FAMILY BRACHYLAEMIDAE

Joyeux and Foley, 1930

##### *Brachylaima bravoae* (Deloya, 1970)

Syn.: *Brachylaemus bravoae* Deloya, 1970  
Site: small intestine  
Host: *Liomys pictus pictus*  
Dist.: Mexico  
Record: Deloya 1970

##### *Brachylaima chiapensis* Ubelaker and Dailey, 1966

Site: small intestine  
Host: *Peromyscus guatemalensis*  
*guatemalensis*  
Dist.: Mexico  
Record: Ubelaker and Dailey 1966

##### *Brachylaima didelphus* Premvati and Bair, 1979

Site: intestine  
Host: *Didelphis virginiana*  
Dist.: FL  
Record: Premvati and Bair 1979

*Brachylaima dolichodirus* Mason, 1953

Site: intestine

Host: *Blarina brevicauda*

Dist.: NC, TN

Record: 1. Mason 1953 (TN); 2. Miller et al. 1974

*Brachylaima opisthotrias* (Lutz, 1895) Dollfus, 1935

Syn.: *Distomum opisthotrias* Lutz, 1895  
*Harmostomum opisthotrias* (Lutz, 1895) Braun, 1899

Site: small intestine, ileum

Host: *Didelphis virginiana* (1,2,3,4,5)

*Didelphis* sp. (6)

Dist.: IL, PA, TN, TX, VA

Records: 1. Dickerson 1930 (VA); 2. Chandler 1932 (TX); 3. Canavan 1934 (PA); 4. Leigh 1940 (IL); 5. Byrd and Reiber 1942a (TN); 6. Babero 1957 (IL)

*Brachylaima opisthotrias virginiana* (Dickerson, 1930)

Syn.: *Harmostomum opisthotrias virginiana* Dickerson, 1930

Site: small intestine

Host: *Didelphis virginiana*

Dist.: VA

Record: Dickerson 1930

*Brachylaima ovatus* (Sinitsin, 1931)

Syn.: *Ectosiphonus ovatus* Sinitsin, 1931

Site: small intestine

Host: *Blarina brevicauda*

Dist.: IA

Record: Wittrock and Hendrickson 1979

*Brachylaima peromysci* Reynolds, 1938

Site: small intestine

Hosts: *Mus musculus* (2)

*Peromyscus leucopus* (2)

*P. l. leucopus* (1)

Dist.: KY, MD, VA

Records: 1. Reynolds 1938 (VA); 2. Hall and Sonnenberg 1955 (KY, MD)

*Brachylaima rauschi* McIntosh, 1950

Site: intestine

Hosts: *Dicrostonyx groenlandicus rubricatus*  
*Microtus miurus muriei*

Dist.: AK

Record: McIntosh 1950; Rausch 1952a

*Brachylaima rhomboideus* (Sinitsin, 1931)

Site: stomach, small intestine

Host: *Blarina brevicauda*

Dist.: CT, IA

Records: Wittrock and Hendrickson 1979 (IA); Huffman and Penner 1981 (CT)

*Brachylaima thompsoni* (Sinitsin, 1931)

Syn.: *Entosiphonus thompsoni* (Sinitsin, 1931)

Site: small intestine

Hosts: *Blarina brevicauda* (3,4,5,6)

*B. b. brevicauda* (2)

*B. b. kirtlandi* (2)

*Peromyscus leucopus leucopus* (1)

*P. l. noveboracensis* (3)

*Sorex cinereus cinereus* (2)

Dist.: CT, IA, MI, NC, WI

Records: 1. Harkema 1936 (NC); 2. Rausch and Tiner 1949 (MI, WI); 3. Villella 1953 (MI); 4. Miller et al. 1974 (NC); 5. Wittrock and Hendrickson 1979 (IA); 6. Huffman and Penner 1981 (CT)

*Brachylaima virginiana* (Dickerson, 1930)

Syn.: *Brachylaemus migrans* of Sinitsin, 1931

*Brachylaimus virginianus* Dickerson, 1930

Site: small intestine

Hosts: *Dasyopus novemcinctus* (3)

*Didelphis marsupialis* (15)

*D. virginiana* (2,7,10,12,14)

*D. v. virginiana* (4,11)

*Didelphis* sp. (1,5,6)

*Mephitis mephitis* (8)

*Mustela vison* (9)

*Peromyscus leucopus* (12)

*P. l. noveboracensis* (4)

*Procyon lotor* (16)

Dist.: CA, GA, IL, LA, MI, NC, TN, TX, VA, WV

Records: 1. Reynolds 1938 (VA); 2. Byrd and Reiber 1942a (GA, TN); 3. Chandler 1946 (TX); 4. Rausch and Tiner 1949 (MI); 5. Hand and Voge 1952 (CA); 6. Babero 1957 (IL); 7. 1960a (LA); 8. 1960b (GA); 9. Lumsden and Zischke 1961 (LA); 10. Kaplan 1964 (LA); 11. Holloway 1966 (VA); 12. Miller and Harkema 1970 (NC); 13. Zenchak and Hall 1971 (WV); 14. Feldman et al. 1972 (NC); 15. Nettles et al. 1975 (GA); 16. Schaffer et al. 1981 (VA)

*Brachylaima* spp.

Site: small intestine

Hosts: *Microtus pennsylvanicus*

*terraenovae* (1)

*Ochotona collaris* (2)

*Sciurus carolinensis* (3)

Dist.: AK, MD, NC, Nfld

Records: 1. Rausch 1952b (Nfld); 2. Dunagan 1957a (AK); 3. Davidson 1976 (MD, NC)

*Ityogonimus scalopi* Turner and McKeever, 1980

Site: intestine

Host: *Scalopus aquaticus*

Dist.: SC

Record: Turner and McKeever 1980

*Panopistius pricei* Sinitzin, 1931

Site: small and large intestine

Hosts: *Blarina brevicauda* (2,3,4,5,6)

*B. b. brevicauda* (1)

*B. b. kirtlandi* (1)

Dist.: CT, IL, IA, MI, NC, WI

Records: 1. Rausch and Tiner 1949 (MI, WI);

2. Vilella 1954 (MI); 3. Levin 1957 (IL); 4.

Miller et al. 1974 (NC); 5. Wittrock and

Hendrickson 1979 (IA); 6. Huffman and

Penner 1981 (CT)

*Postharmostomum helices* (Leidy, 1847) Robinson, 1949

Syn.: *Distoma helices* Leidy, 1847

*Postharmostomum laruei*, 1934

Site: caecum

Host: *Peromyscus maniculatus* (2)

*Tamias striatus lysteri* (1)

Dist.: MI, Que

Record: 1. McIntosh 1934 (MI); 2. Schad

1956 (Que)

*Postharmostomum noveboracensis* McIntosh, 1937

Site: intestine

Host: *Tamias striatus lysteri*

Dist.: NY

Record: McIntosh 1937

*Scaphiostomum microti* (Kruidenier and Gallicchio, 1959) Mas-Coma, Esteban and Valero, 1986

Syn.: *Brachylaime microti* Kruidenier and Gallicchio, 1959

Site: bile ducts, pancreatic duct

Hosts: *Microtus longicaudus baileyi* (1)

*Peromyscus maniculatus sonoriensis* (2,3,4)

*Spermophilus variegatus utah* (5)

Dist.: CO, UT

Records: 1. Kruidenier and Gallicchio 1959

(CO); 2. Frandsen and Grundmann 1960

(UT); 3. Grundmann and Frandsen 1960

(UT); 4. Frandsen and Grundmann 1961

(UT); 5. Jenkins and Grundmann 1973 (UT)

*Scaphiostomum pancreaticum* McIntosh, 1934

Site: pancreatic duct

Hosts: *Peromyscus gossypinus*

*gossypinus* (2)

*Tamias striatus* (3,4)

*T. s. lysteri* (1)

Dist.: GA, MI, Ont, WI

Records: 1. McIntosh 1934 (MI), 2. 1935

(GA); 3. Rausch and Tiner 1948 (WI); 4.

Jensen 1972 (Ont)

#### FAMILY CYATHOCOTYLIDAE Muhling, 1898

*Linstowiella szidati* (Anderson, 1944)

Syn.: *Cercaria szidati*, 1944

Site: small intestine

Host: *Didelphis virginiana*

Dist.: LA

Record: Lumsden and Winkler 1962

#### FAMILY DIPLOSTOMIDAE Poirier, 1886

*Alaria alata* (Goeze, 1782) Krause, 1914

Site: intestine

Host: *Vulpes vulpes*

Dist.: Man, PEI, Que

Record: Swales 1933 (PEI, Que); Baron 1970 (Man)

*Alaria americana* (Hall and Wigdor, 1918)

Syn.: *Alaria canis* LaRue and Fallis, 1936

Site: intestine

Hosts: *Canis latrans* (7,10,13)

*C. lupus* (1,5,7,8,9,10,12,15)

*Lynx canadensis* (7)

*L. rufus* (7,11)

*Martes pennanti* (7)

*Urocyon cinereoargenteus* (4,11)

*Ursus americanus* (15)

*Vulpes vulpes* (1,2,4,6,7,8,14,16,17)

*V. v. alaskensis* (3,5)

Dist.: AK, Alta, MN, NB, NC, NS, Ont, PEI, Que, TX, WI, YT

Records: 1. Law and Kennedy 1932 (Ont); 2.

Swales 1933b (PEI, Que); 3. Dubois and

Rausch 1950 (AK); 4. Erickson 1950 (MN) 5.

Babero and Rausch 1952 (AK); 6. Pearson

1954 exp. (Ont), 7. 1956 (Ont); 8. Dunagan

1957a (AK); 9. Rausch and Williamson 1959

(AK); 10. Holmes and Podesta 1968 (Alta);

11. Miller and Harkema 1968 (NC); 12.

Choquette, Gibson et al. 1973 (YT); 13.

Thornton et al. 1974 (TX); 14. Gilbertson

1977 (MN); 15. Addison et al. 1978 (Ont); 16.

Smith 1978 (NB, NS); 17. Dibble et al. 1983

(WI)

- Alaria americana* Hall and Wigdor, 1918  
(mesocercaria)  
Site: many tissues  
Hosts: *Lutra canadensis* (2)  
*Mus musculus* (2)  
*Mustela* sp. (1,2)  
*Peromyscus maniculatus* (1,2)  
Dist.: Ont  
Records: 1. Pearson 1954 exp., 2. 1956 exp.
- Alaria arisaemoides* Augustine and Uribe, 1927  
Syn.: *Alaria oregonensis* La Rue and Barone, 1927  
Site: intestine  
Hosts: *Canis latrans* (2,7,8,11)  
*C. l. lestes* (3)  
*C. lupus* (9,11)  
*Urocyon cinereoargenteus* (5)  
*Vulpes vulpes* (1,4,5,6,10,11,12,13)  
Dist.: Alta, MA, Man, MN, NB, NS, NWT, Ont, OR, WI, YT  
Records: 1. Augustine and Uribe 1927 (MA); 2. La Rue and Barone 1927 (OR), 3. 1932 (OR); 4. Law and Kennedy 1932 (Ont); 5. Rankin 1946 (MA); 6. Pearson 1954 exp. (Ont); 7. 1956 (Ont); 8. Holmes and Podesta 1968 (Alta); 9. Choquette, Gibson et al. 1973 (NWT, YT); 10. Gilbertson 1977 (MN); 11. Samuel, Ramalingam et al. 1978 (Man); 12. Smith 1978 (NB, NS); 13. Dibble et al. 1983 (WI)
- Alaria arisaemoides* Augustine and Uribe, 1927  
(mesocercaria)  
Site: many tissues  
Hosts: *Mus musculus* (2)  
*Mustela* sp. (1)  
*Peromyscus maniculatus* (1,2)  
Ferret (1)  
Lab. mice (1)  
Dist.: Ont  
Records: 1. Pearson 1954 exp., 2. 1956
- Alaria craterum* (Barker and Noll, 1915)  
Site: duodenum  
Hosts: *Mustela vison* (1)  
*Ondatra zibethicus* (1)  
Dist.: Ont  
Record: Law and Kennedy 1932
- Alaria marciae* (LaRue, 1917) Walton, 1949  
Site: small intestine  
Hosts: *Canis latrans* (2,4,6)  
*C. lupus* (7)  
*Lynx canadensis* (8)  
*L. rufus* (3)  
*Mephitis mephitis* (1)
- Procyon lotor hirtus* (5)  
*Spilogale putorius* (1)  
*Taxidea taxus* (1)  
*Urocyon cinereoargenteus* (1)  
*Vulpes vulpes* (1,5)  
Dist.: Man, MN, MT, Ont, Que, Sask, TX  
Records: 1. Johnson 1968 (MN); 2. Samuel, Ramalingam et al. 1978 (Man); 3. Stone and Pence 1978 (TX); 4. Pence and Meinzer 1979 (TX); 5. Hoberg and McGee 1982 (Sask); 6. Seese et al. 1983 (MT); 7. McNeill et al. 1984 (Que); 8. Smith et al. 1986 (Ont)
- Alaria minnesotae* Chandler, 1954  
Site: small intestine  
Host: *Mephitis mephitis*  
Dist.: MN  
Record: Chandler 1954
- Alaria mustelae* Bosma, 1931  
Syn.: *Alaria canadensis* Webster and Wolfgang, 1956  
*Alaria dubia* Chandler and Rausch, 1946  
*Alaria intermedia* Olivier and Odlaug, 1938  
*Alaria minuta* Chandler and Rausch, 1946  
*Alaria taxideae* Swanson and Erickson, 1946  
Site: small intestine  
Hosts: *Canis latrans* (9)  
*Gulo luscus* (14,16)  
*Martes americana* (27)  
*M. a. actiosa* (17)  
*M. pennanti* (24)  
*Mephitis mephitis* (5,7,13,20,25)  
*M. m. nigra* (6,8,11)  
*Mustela erminea* (25)  
*M. e. cicognanii* (5,7)  
*M. frenata* (5,7,12,25)  
*M. f. noveboracensis* (3,7)  
*M. vison* (1,2,3,4,5,12,18,19,25)  
*M. v. letifera* (7)  
*Mustela* spp. (1)  
*Ondatra zibethicus* (2,10,14,15,26)  
*Spilogale putorius* (5,7,9,25)  
*Taxidea taxus* (4,7,21,22,25)  
*Urocyon c. cinereoargenteus* (6)  
*Vulpes vulpes* (2,23)  
Dist.: AK, IA, MA, Man, MD, MI, MN, NB, NC, ND, NS, NWT, Ont, OR, Que, WI  
Records: 1. Bosma 1931 (MI); 2. Law and Kennedy 1932 (Ont); 3. Bosma 1934 (MI); 4. Chandler and Rausch 1946 (MI); 5. Erickson 1946 (MN); 6. Rankin 1946 (MA); 7. Swanson and Erickson 1946 (MN); 8. Rausch

- and Tiner 1949 (MI); 9. Erickson 1950 (MN); 10. Sweatman 1952 (Ont); 11. Goldberg 1954 (MD); 12. Senger and Neiland 1955 (OR); 13. Webster and Wolfgang 1956 (Que); 14. Dunagan 1957a (AK), 15. 1957b (AK); 16. Dubois and Rausch 1960 (AK); 17. Holmes 1963 (NWT); 18. Miller and Harkema 1964 (NC); 19. Dorney and Lauerma 1969 (WI); 20. Dyer 1970 (ND); 21. Leiby et al. 1971 (ND); 22. Wittrock and Ulmer 1974 (IA); 23. Smith 1978b (NB,NS); 24. Dick and Leonard 1979 (Man); 25. Johnson 1979 (MN); 26. McKenzie and Welch 1979 (Man); 27. Poole et al. 1983 (Man)
- Alaria mustelae* Bosma, 1931 (mesocercaria)  
Site: lungs, spleen, musculature  
Host: *Spermophilus franklinii*  
Dist.: Sask  
Record: McGee 1980 (Sask)
- Alaria mustelae* Bosma, 1931 (metacercaria)  
Site: muscle  
Host: *Peromyscus leucopus noveboracensis*  
Dist.: MI  
Record: Bosma 1934
- Alaria nasuae* LaRue and Townsend, 1927  
Site: ceca  
Host: *Nasua nasua*  
Dist.: DC  
Records: LaRue and Townsend 1927, 1932  
Remarks: The specimens for LaRue and Townsend's (1927) study came from material deposited in a collection housed at the Bureau of Animal Industry, Washington, DC. The collection site was not given in the paper.
- Alaria* spp.  
Site: small intestine  
Hosts: *Canis latrans* (1,7)  
*C. lupus* (8)  
*Gulo luscus* (4,6)  
*Lynx canadensis* (5)  
*Martes pennanti* (2)  
*Mephitis mephitis avia* (3)  
Dist.: AK, Alta, NWT, Ont, OR, TX, WI  
Records: 1. Cram 1926 (OR); 2. Anonymous 1930 (Ont); 3. Rausch and Tiner 1949 (WI); 4. Rausch 1959 (AK); 5. Zyll DeJong 1966 (Alta,NWT); 6. Addison and Boles 1978 (NWT); 7. Pence and Meinzer 1979 (TX); 8. Archer et al. 1986 (WI)
- Didelphodiplostomum variabile* (Chandler, 1932) Dubois, 1945  
Syn.: *Diplostomum variabile* (Chandler, 1932)  
*Proalaria variabilis* Chandler, 1932  
Site: intestine  
Host: *Didelphis virginiana* (1,2,3,4,6,7,8)  
*Didelphis* sp. (5)  
Dist.: FL, GA, IL, NC, TN, TX  
Records: 1. Chandler 1932 (TX); 2. Leigh 1940 (IL); 3. Byrd and Reiber 1942a (IL,TN); 4. Babero 1957 (IL), 5. 1960a (GA); 6. Miller and Harkema 1970 (NC); 7. Feldman et al. 1972 (NC); 8. Premvati and Bair 1979 (FL)
- Diplostomum mergi* Dubois, 1932  
Site: intestine  
Host: *Ondatra zibethicus obscurus*  
Dist.: Nfld  
Record: Rigby and Threlfall 1981
- Enhydridiplostomum alarioides* (Dubois, 1937) Dubois, 1944  
Site: small intestine  
Hosts: *Lutra canadensis* (1,3,4)  
Dist.: AL, GA, NC  
Records: 1. Sawyer 1961 (GA); 2. Miller and Harkema 1964 (NC), 3. 1968 (NC); 4. Flemming et al. 1977 (AL)
- Fibricola cratera* (Barker and Noll, 1915) Dubois, 1932  
Syn.: *Hemistomum craterum* Barker and Noll, 1915  
*Fibricola laruei* Miller, 1940  
*Fibricola nana* Chandler and Rausch, 1946  
Site: intestine  
Hosts: *Didelphis virginiana* (3,16)  
*D. v. virginiana* (5)  
*Mephitis mephitis* (7,10)  
*M. m. nigra* (6)  
*Mustela vison* (5,11)  
*Ondatra zibethicus* (1)  
*O. z. osoyoosensis* (14)  
*O. z. zibethicus* (8,13)  
*Peromyscus maniculatus bairdii* (6)  
*Procyon lotor* (2,7,9,11,12,17)  
*P. l. lotor* (6)  
*Tamiasciurus hudsonicus* (4)  
*T. h. loquax* (4)  
*Taxidea taxus* (15)  
Dist.: FL, GA, IA, IL, LA, MI, NC, NE, OH, Que, SC, TN, TX, UT, WI, WY  
Records: 1. Barker 1915 (NE); 2. Miller 1940 (Que); 3. Byrd and Reiber 1942a (GA,TN); 4. Rausch and Tiner 1948 (MI); 5. Read 1948 (TX); 6. Rausch and Tiner 1949 (MI,WI); 7. Dubois and Rausch 1950 (WY); 8. Gilford

1954 (IL); 9. Hoffman 1955 (unspecified); 10. Webster and Wolfgang 1956 (Que); 11. Lumsden and Zischke 1961 (LA); 12. Harkema and Miller 1964 (FL,NC,SC); 13. Beckett and Gallicchio 1967 (OH); 14. Grundmann and Tsai 1967 (UT); 15. Wittrock and Ulmer 1974 (IA); 16. Premvati and Bair 1979 (FL); 17. Schaffer et al. 1981 (FL,GA,TX)  
 Remarks: Rausch and Tiner (1948) considered *T. h. loquax* an accidental host for *F. nana*.

*Fibricola lucida* (LaRue and Bosma, 1927) Dubois and Rausch, 1950

Syn.: *Neodiplostomum lucidum* LaRue and Bosma, 1927

Site: duodenum, small intestine

Hosts: *Didelphis virginiana* (1,2,5,6,7)

*Didelphis* sp. (4)

*Mustela vison* (3)

Dist.: FL, GA, IL, LA, TN, TX

Records: 1. LaRue and Bosma 1927 (TX); 2. Byrd and Reiber 1942 (GA,TN); 3. Read 1948 (TX); 4. Babero 1957 (IL); 5. Lumsden and Zischke 1961 (LA); 6. Kaplan 1964 (LA); 7. Premvati and Bair 1979 (FL)

*Fibricola texensis* Chandler, 1942

Site: small intestine

Hosts: *Procyon lotor* (3,4,5,7)

*P. l. lotor* (1,2)

*P. l. solutus* (6)

Dist.: GA, SC, TN, TX

Records: 1. Chandler 1942a (TX), 2. 1942b (TX); 3. Dubois and Rausch 1950 (TX); 4. Babero and Shepperson 1958 (GA); 5. Sawyer 1958 (GA); 6. Harkema and Miller 1962 (SC); 7. Bafundo et al. 1980 (TN)

*Fibricola* spp.

Site: small intestine

Hosts: *Procyon lotor* (1)

*Sus scrofa* (2)

Dist.: GA

Records: 1. Babero and Shepperson 1958; 2. Babero et al. 1959

*Parallelorchis diglossus* Harkema and Miller, 1961

Site: small intestine

Host: *Procyon lotor*

Dist.: FL, TN

Records: 1. Harkema and Miller 1961 (FL), 2. 1964 (FL); 3. Bafundo et al. 1980 (TN); 4. Schaffer et al. 1981 (FL)

*Pharyngostomoides adenocephala* Beckerdite, Miller and Harkema, 1971

Site: small intestine

Hosts: *Procyon lotor* (1,2,4)

*P. l. hirtus* (3)

Dist.: FL, NC, Ont, Sask, TX

Records: 1. Beckerdite et al. 1971 (NC); 2. Schaffer et al. 1981 (FL,TX); 3. Hoberg and McGee 1982 (Sask); 4. Butterworth and Holmes 1984 (Ont)

*Pharyngostomoides ovale* Chandler and Rausch, 1946

Site: intestine

Hosts: *Procyon lotor* (2)

*P. l. lotor* (1)

Dist.: FL, MI

Records: 1. Rausch and Tiner 1949 (MI); 2. Loftin 1960 (FL)

*Pharyngostomoides procyonis* Harkema, 1942

Site: small intestine

Hosts: *Procyon lotor* (3,4,6,7,8,9,10,12,13)

*P. l. lotor* (1,2)

*P. l. solutus* (5)

*Ursus americanus* (11)

Dist.: FL, GA, NC, Ont, SC, TN, TX, VA

Records: 1. Chandler 1942a (TX); 2. Harkema 1942 (NC); 3. Babero and Shepperson 1958 (GA); 4. Sawyer 1958 (GA); 5. Harkema and Miller 1962 (SC), 6. 1964 (FL, GA, NC, SC, VA); 7. Harris et al. 1967 (NC); 8. Beckerdite et al. 1971 (NC,TX); 9. Bafundo et al. 1980 (TN); 10. Schaffer et al. 1981 (FL, NC, TX, VA); 11. Conti et al. 1983 (FL); 12. Butterworth and Holmes 1984 (Ont); 13. Miller 1984 (NC)

*Procyotrema marsupiformis* Harkema and Miller, 1959

Site: gall bladder, pancreatic duct

Hosts: *Procyon lotor* (2,3,4,6)

*P. l. lotor* (1)

*Urocyon cinereoargenteus* (5)

Dist.: MD, NC

Records: 1. Harkema and Miller 1959 (NC), 2. 1964 (NC); 3. Miller and Harkema 1964 (NC); 4. Locke and Brown 1965 (MD); 5. Miller and Harkema 1968 (NC); 6. Schaffer et al. 1981 (NC)

FAMILY HASSTILESIIDAE Hall, 1916

*Hasstilesia tricolor* (Stiles and Hassall, 1894) Hall, 1916

Syn.: *Distoma tricolor* Stiles and Hassall, 1894

*Hasstilesia novicia*  
*Hasstilesia texensis* Chandler, 1929  
*Monostomum* sp. of Curtice (1892)

Site: small intestine

Hosts: *Lepus americanus* (1)

*L. californicus texianus* (3)

*Sylvilagus aquaticus* (17)

*S. a. aquaticus* (7)

*S. floridanus* (7,12,18,21,22,23,24,25)

*S. f. alacer* (3)

*S. f. mallurus* (4,15,19)

*S. f. mearnsii* (6,11,13,14)

*S. nutallii* (1,16)

*S. palustris* (19,20)

*S. p. palustris* (15)

*S. transitionalis* (20)

*Vulpes vulpes* (15)

Cottontail (5,8,9)

Jack Rabbit (2)

Rabbit (2,10)

Varying hare (5)

Dist.: AL, AR, CT, DC, FL, GA, IA, KS, KY,  
 LA, MD, MI, MN, MO, MS, NC, NJ,  
 NY, OH, PA, RI, SC, TN, TX, VA, WI,  
 WV

Records: 1. Stiles and Hassall 1894b  
 (DC,VA); 2. Hall 1916 (DC,MD,NY,TX,VA);  
 3. Chandler 1929 (TX); 4. Harkema 1936  
 (NC); 5. Bump 1937 (NY); 6. Morgan and  
 Waller 1940 (IA); 7. Byrd and Reiber 1942b  
 (MS,TN); 8. Bell and Chalgren 1943  
 (AL,CT,KS,MD,MO,NJ,NY,PA,RI,VA,WV);  
 9. Llewellyn and Handley 1945 (VA); 10.  
 Ward 1946 (MS); 11. Erickson 1947 (MN);  
 12. Moore and Moore 1947 (AL); 13. Rausch  
 and Tiner 1949 (MI,WI); 14. Rowan 1955  
 (NY); 15. Robinson 1959 (GA,NY,OH); 16.  
 Marker and Cheng 1960 (PA); 17. Lumsden  
 and Zischke 1961 (LA); 18. Franklin et al.  
 1966 (KS); 19. Stringer et al. 1969 (NC); 20.  
 Eckerlin 1973 (CT,FL); 21. Jacobson et al.  
 1974 (VA); 22. Jacobson et al. 1978 (VA); 23.  
 Andrews et al. 1980 (AL,AR,MD,MS,  
 NC,SC,VA); 24. Wiggins et al. 1980 (PA); 25.  
 Strohlein and Christensen 1983 (KY)  
 Remarks: Curtice (1892) originally described  
 this trematode as *Monostomum* sp. from  
*Lepus americanus*. The *Monostomum* sp. was  
 subsequently redescribed as *Hasstilesia*  
*tricolor* (Stiles and Hassall, 1894) Hall, 1916.

*Hasstilesia* spp.

Site: intestine

Host: Cottontail rabbit

Dist.: NY

Records: Bump 1940, 1941, 1942

## FAMILY LEUCOCHLORIDIOMORPHIDAE

Travassos and Kohn, 1966

*Ptyalincola ondatrae* Wootton and Murrell, 1967

Site: ducts of salivary glands and oral cavity

Host: *Ondatra zibethicus*

Dist.: MI

Record: Wootton and Murrell 1967

## FAMILY SCHISTOSOMATIDAE

Stiles and Hassall, 1898

*Heterobilharzia americana* Price, 1929

Site: liver, mesenteric and portal veins

Hosts: *Canis latrans* (9)

*C. latrans* x *C. rufus* (9)

*C. rufus* (9)

*Castor canadensis* (12)

*Didelphis virginiana* (7)

*Lynx rufus floridanus* (1)

*Myocastor coypus* (4,5,7)

*Odocoileus virginianus* (8)

*Procyon lotor* (2,3,4,5,6,7,8,10,11,13)

*Sylvilagus aquaticus* (4,5)

Rabbit (7)

Dist.: FL, GA, LA, NC, SC, TX

Records: 1. Price 1929 (FL); 2. 1943 (TX); 3.  
 Miller and Harkema 1960 (NC); 4. Malek et  
 al. 1961 (FL,LA); 5. Lee 1962 (LA); 6.  
 Harkema and Miller 1964 (FL,NC); 7.  
 Kaplan 1964 (LA); 8. Byrd et al. 1967  
 (GA,SC); 9. Custer and Pence 1981 (LA,TX);  
 10. Schaffer et al. 1981 (FL,NC,TX); 11.  
 Kocan et al. 1982 (FL); 12. Fedynick et al.  
 1986 (TX); 13. Short and Grossman 1986  
 (TX)

Remarks: Price (1929) collected his  
 specimens from a *Lynx* sp., possibly *L. uinta*,  
 from the National Zoological Park in  
 Washington, DC.

*Heterobilharzia* spp.

Site: mesenteric or portal vein

Host: *Myocastor coypus bonariensis*

Dist.: LA

Record: Babero and Lee 1961

*Schistosomatum douthitti* (Cort, 1914) Price, 1929

Site: portal and mesenteric veins, liver,  
 spleen

Hosts: *Erethizon dorsatum* (7)

*Microtus pennsylvanicus* (5,9)

*M. p. pennsylvanicus* (2)

*Ondatra zibethicus* (1,3,10,11)

*O. z. zibethicus* (4,6)

*Peromyscus leucopus* (9)

*Zapus hudsonius* (8,9)

Dist.: IL, Man, MI, MN, NB, OH, Ont

Records: 1. Penner 1938 (MI,MN); 2. Price 1939 (MI); 3. Ameel 1942 (MI); 4. Gilford 1954 (IL); 5. Farley 1962 (Man); 6. Beckett and Gallicchio 1967 (OH); 7. Choquette, Broughton et al. 1973 (Ont); 8. Carmichael and Muchlinski 1980 (MI); 9. Zajac and Williams 1980 (MI); 10. MacKinnon and Burt 1978 (NB); 11. McKenzie and Welch 1979 (Man)

#### UNIDENTIFIED SCHISTOSOMATIDAE

*Schistosomatidae* gen. spp.

Site: intestinal contents

Host: *Myocastor coypus bonariensis*

Dist.: LA

Record: Babero and Lee 1961

#### UNIDENTIFIED DIGENEA

*Braunina cordiformis* (Woff)

Site: pyloric and second stomachs

Host: *Tursiops nesarnack*

Dist.: CA, FL

Records: Johnston and Ridgway 1969 (CA); Woodard et al. 1969 (FL)

*Digenea* gen. spp.

Site: small intestine, spinal cord at the foramen magnum

Hosts: *Eptesicus fuscus* (5)

*Globicephala sieboldii* (3)

*Myotis keenii* (5)

*M. lucifugus* (5)

*M. velifer incautus* (2)

*Peromyscus maniculatus* (1)

*Pipistrellus subflavus* (5)

*Tadarida brasiliensis* (2)

*Zalophus californianus* (4)

Dist.: CA, IN, TX

Records: 1. Schad 1956 (Que); 2. Jameson 1959 (TX); 3. Norris 1966 (CA); 4. Migaki et al. 1971 (unspecified); 5. Whitaker and Mumford 1971 (IN)

## **HOST - PARASITE LIST**



**CLASS MAMMALIA**  
**SUBCLASS THERIA**  
**INFRACCLASS EUTHERIA**  
**ORDER ARTIODACTYLA**  
**FAMILY BOVIDAE**

*Bison bison* (Linnaeus) American bison  
 FASCIOLIDAE  
*Fasciola hepatica* (MT,WY)

*Bos taurus* Linnaeus Feral cattle  
 FASCIOLIDAE  
*Fasciola hepatica* (GA)  
 PARAMPHISTOMIDAE  
*Calicophoron microbothrioides* (GA)

**FAMILY CERVIDAE**

*Alces alces* (Linnaeus) Moose  
 FASCIOLIDAE

*Fascioloides magna* (Alta,BC,Man,MN,Ont)

PARAMPHISTOMIDAE

*Paramphistomum cervi*

(MN,Nfld,Ont,Que,Sask)

*P. liorchis* (Ont)

*Paramphistomum* spp. (Alta,MN)

*Zygocotyle lunata* (Alta)

*Alces alces americana* (Clinton)

SYN.: *Alces americanus* (Clinton)

FASCIOLIDAE

*Fascioloides magna* (MN)

PARAMPHISTOMIDAE

*Paramphistomum cervi* (MN)

*Cervus elaphus* (Linnaeus) Wapiti  
 FASCIOLIDAE

*Fasciola hepatica* (MT)

*Fascioloides magna* (Alta,BC,Ont,OR,Que,)

*Cervus elaphus nelsoni* Bailey

SYN.: *Cervus canadensis nelsoni* Bailey

FASCIOLIDAE

*Fascioloides magna* (OR)

*Cervus elaphus roosevelti* Merriam

SYN.: *Cervus canadensis roosevelti* Merriam

FASCIOLIDAE

*Fascioloides magna* (WA)

*Cervus unicolor* Sambar deer

PARAMPHISTOMIDAE

*Paramphistomum liorchis* (FL)

*Odocoileus hemionus* (Rafinesque) Black-tailed deer  
 FASCIOLIDAE

*Fasciola hepatica* (WA)  
*Odocoileus hemionus columbianus* (Richardson)

FASCIOLIDAE

*Fasciola hepatica* (BC,CA)

*Fascioloides magna* (Alta,BC,NY,OR)

*Odocoileus hemionus hemionus* (Rafinesque)

FASCIOLIDAE

*Fascioloides magna* (Alta,BC)

*Odocoileus virginianus* (Zimmerman) White-tailed deer  
 SYN.: *Cariacus virginianus* (Zimmerman)

DICROCOELIDAE

*Dicrocoelium dendriticum* (NY)

FASCIOLIDAE

*Fasciola hepatica* (WA)

*Fascioloides magna*

(AL,Alta,AR,BC,FL,GA,LA,MI,MN,MS,MT,N

C,NY,Ont,OR,Que,SC,TN,TX,WI)

PARAMPHISTOMIDAE

*Paramphistomum cervi* (AL)

*P. liorchis* (AL,FL,GA,LA,SC)

Paramphistomidae gen. spp. (FL)

*Zygocotyle lunata* (MI)

SCHISTOSOMATIDAE

*Heterobilharzia americana* (SC)

*Odocoileus virginianus borealis* Miller

FASCIOLIDAE

*Fascioloides magna* (MN)

*Odocoileus virginianus leucurus* (Douglas)

FASCIOLIDAE

*Fascioloides magna* (OR)

*Odocoileus* spp.

FASCIOLIDAE

*Fasciola hepatica* (CA,MT)

*Fascioloides magna* (MT,NC,NY,Ont)

PARAMPHISTOMIDAE

*Paramphistomum liorchis* (AL,GA)

*Rangifer tarandus caribou* (Gmelin) Caribou

SYN.: *Rangifer caribou sylvestris* Richardson

FASCIOLIDAE

*Fascioloides magna* (MN,Que)

**FAMILY SUIDAE**

*Sus scrofa* Feral swine

DIPLOSTOMIDAE

*Fibricola* spp. (GA)

FASCIOLIDAE

*Fasciola hepatica* (GA)

*Fascioloides magna* (TX)

MICROPHALLIDAE

*Pseudospelotrematoides* spp. (GA)

# FAMILY TAYASSUIDAE

*Dicotyles tajacu angulatus* Cope Collared peccary  
FASCIOLIDAE  
*Fascioloides magna* (TX)

## ORDER CARNIVORA

### FAMILY CANIDAE

*Alopex lagopus* (Linnaeus) Arctic fox  
SYN.: *Vulpes lagopus*  
ECHINOSTOMATIDAE  
*Echinoparyphium* spp. (GD)  
HETEROPHYIDAE  
*Apophallus venustus* (DC)  
*Cryptocotyle concavum* (GD)  
*Phagicola longa* (DC)  
*P. nana* (DC)  
PLAGIORCHIIDAE  
*Plagiorchis elegans* (AK,GD)

*Canis latrans* Say Coyote  
DIPLOSTOMIDAE  
*Alaria americana* (Alta,Ont,TX)  
*A. arisaemoides* (Alta,Man,Ont,OR)  
*A. marcianae* (Man,MT,TX)  
*A. mustelae* (MN)  
*Alaria* spp. (OR,TX)  
NANOPHYETIDAE  
*Nanophyetus salmincola* (OR)  
OPISTHORCHIIDAE  
*Metorchis conjunctus* (Alta)  
PARAGONIMIDAE  
*Paragonimus kellicotti* (Ont)  
SCHISTOSOMATIDAE  
*Heterobilharzia americana* (LA,TX)  
*Canis latrans lestes* Merriam  
SYN.: *Canis lestes* Merriam  
DIPLOSTOMIDAE  
*Alaria arisaemoides* (OR)  
NANOPHYETIDAE  
*Nanophyetus salmincola* (WA)

*Canis lupus* Linnaeus Gray wolf  
DIPLOSTOMIDAE  
*Alaria americana* (AK,Alta,Ont,YT)  
*A. arisaemoides* (Man,NWT,YT)  
*A. marcianae* (Que)  
*Alaria* sp. (WI)  
OPISTHORCHIIDAE  
*Metorchis conjunctus* (Alta,Sask)

*Canis rufus* Audubon and Bachman Red wolf  
SCHISTOSOMATIDAE  
*Heterobilharzia americana* (LA,TX)

*Canis rufus x Canis latrans*  
DICROCOELIIDAE  
*Eurytrema procyonis* (LA,TX)  
SCHISTOSOMATIDAE  
*Heterobilharzia americana* (LA,TX)

*Urocyon cinereoargenteus* (Schreber) Gray fox  
DICROCOELIIDAE  
*Eurytrema procyonis* (MD,NC)  
DIPLOSTOMIDAE  
*Alaria americana* (MN,NC)  
*A. arisaemoides* (MA)  
*A. marcianae* (MN)  
*Procyotrema marsupiformis* (NC)  
HETEROPHYIDAE  
*Euryhalmis squamula* (GA)  
PARAGONIMIDAE  
*Paragonimus mexicanus* (Costa Rica)  
TROGLOTEMATIDAE  
*Trogloctrema mustelae* (GA)  
*Urocyon cinereoargenteus cinereoargenteus*  
(Schreber)  
DIPLOSTOMIDAE  
*Alaria arisaemoides* (MA)  
*A. mustelae* (MA)

*Vulpes vulpes* Linnaeus Red fox  
SYN.: *Vulpes fulva* Desmarest  
DICROCOELIIDAE  
*Eurytrema procyonis* (NY)  
DIPLOSTOMIDAE  
*Alaria alata* (Man,PEI,Que)  
*A. americana*  
(AK,MN,NB,NS,Ont,PEI,Que,WI)  
*A. arisaemoides*  
(MA,Man,MN,NB,NS,Ont,WI)  
*A. marcianae* (MN,Sask)  
*A. mustelae* (NB,NS,Ont)  
ECHINOSTOMATIDAE  
*Echinoparyphium* spp. (IL)  
*Echinostoma revolutum* (NB,NS)  
HASSTILESIIIDAE  
*Hasstilesia tricolor* (OH)  
HETEROPHYIDAE  
*Cryptocotyle lingua* (NB,NS)  
*Phagicola longa* (Ont,Que)  
NANOPHYETIDAE  
*Nanophyetus salmincola* (OR)  
OPISTHORCHIIDAE  
*Metorchis conjunctus* (NB,NS)  
PARAGONIMIDAE  
*Paragonimus kellicotti* (MN,Ont)  
PLAGIORCHIIDAE  
*Plagiorchis elegans* (AK)  
*Vulpes vulpes alascensis* Merriam  
SYN.: *Vulpes fulva alascensis* Merriam  
DIPLOSTOMIDAE

*Alaria americana* (AK)  
 PLAGIORCHIIDAE  
*Plagiorchis massino* (AK)

# CANIDAE OF UNDETERMINED SPECIES

Canidae gen. spp. Fox  
 DICROCOELIIDAE  
*Eurytrema procyonis* (NY)

## FAMILY FELIDAE

*Felis concolor* Kerr Mountain lion  
 NANOPHYETIDAE  
*Nanophyetus salmincola* (OR)

*Felis onca* Mearns Jaguar  
 SYN.: *Panthera onca* (Mearns)  
 PARAGONIMIDAE  
*Paragonimus rudis* (GA,NC)  
*Paragonimus* spp. (Belize)

*Felis pardalis* (Linnaeus) Ocelot  
 PARAGONIMIDAE  
*Paragonimus mexicanus* (Costa Rica)  
*Paragonimus* spp. (Belize)

*Lynx canadensis* Kerr Lynx  
 DIPLOSTOMIDAE  
*Alaria americana* (Ont)  
*A. marciae* (Ont)  
*Alaria* sp. (Alta,NWT)  
 OPISTHORCHIIDAE  
*Opisthorchis tenuicollis* (PA)

*Lynx rufus* (Schreber) Bobcat  
 SYN.: *Felis rufa* Schreber  
 DIPLOSTOMIDAE  
*Alaria americana* (NC,Ont)  
*A. marciae* (TX)  
 NANOPHYETIDAE  
*Nanophyetus salmincola* (OR)  
 PARAGONIMIDAE  
*Paragonimus kellicotti* (GA,NC,WV)  
*P. rudis* (NC)

*Lynx rufus fasciatus* Rafinesque  
 SYN.: *Lynx fasciatus* Rafinesque  
 NANOPHYETIDAE  
*Nanophyetus salmincola* (WA)

*Lynx rufus floridanus* Rafinesque  
 SCHISTOSOMATIDAE  
*Heterobilharzia americana* (FL)

# FELIDAE OF UNDETERMINED SPECIES

Felidae gen. spp.  
 PARAGONIMIDAE

*Paragonimus* spp. (Belize)

## FAMILY MUSTELIDAE

*Enhydra lutris* (Linnaeus) Sea otter

CAMPULIDAE  
*Orthosplanchnus fraterculus* (AK)  
 HETEROPHYIDAE  
*Phocitrema fusiforme* (AK)  
*Pricitrema zalophi* (AK)  
 MICROPHALLIDAE  
*Microphallus enhydrae* (AK)  
*M. pirum* (AK)

*Gulo luscus* (Linnaeus) Wolverine  
 SYN.: *Gulo Gulo*  
 DIPLOSTOMIDAE  
*Alaria mustelae* (AK)  
*Alaria* spp. (AK,NWT)

*Lutra canadensis* (Schreber) River otter  
 SYN.: *Lutra canadensis vaga* Bangs  
 DIPLOSTOMIDAE  
*Alaria americana* (Ont)  
*Enhydridiplostomum alarioides* (AL,GA,NC)  
 ECHINOSTOMATIDAE  
*Baschkirovitrema incrassatum*  
 (AL,GA,NC,NY)  
*Euparyphium melis* (MI)  
 NANOPHYETIDAE  
*Nanophyetus salmincola* (OR,WA)  
 TELORCHIIDAE  
*Telorchis* spp. (AL)

*Martes americana* (Turton) Marten  
 DIPLOSTOMIDAE  
*Alaria mustelae* (Man)  
*Martes americana actuosa* (Osgood)  
 DIPLOSTOMIDAE  
*Alaria mustelae* (NWT)

*Martes pennanti* (Erxleben) Fisher  
 DIPLOSTOMIDAE  
*Alaria americana* (Ont)  
*A. mustelae* (Man)  
*Alaria* spp. (Ont)  
 ECHINOSTOMATIDAE  
*Echinostoma* spp. (Ont)  
 OPISTHORCHIIDAE  
*Metorchis conjunctus* (Man)

*Mephitis macroura macroura* Lichtenstein  
 PARAGONIMIDAE Hooded skunk  
*Paragonimus rudis* (Guatemala)

*Mephitis mephitis* Schreber Striped skunk  
 BRACHYLAEMIDAE

- Brachylaima virginiana* (GA)  
DIPLOSTOMIDAE  
*Alaria marcianae* (MN)  
*A. minnesotae* (MN)  
*A. mustelae* (MN,ND,Que)  
*Fibricola cratera* (Que,WY)  
HETEROPHYIDAE  
*Apophallus* spp. (Que)  
*Euryhelms pyriiformis* (Que)  
PARAGONIMIDAE  
*Paragonimus kellicotti* (GA,IA,MD,MN,Ont)  
PLAGIORCHIIDAE  
*Plagiorchis muris* (ND)  
PSILOSTOMIDAE  
*Psilostomum* spp. (LA)
- Mephitis mephitis avia* Bangs      Striped skunk  
DIPLOSTOMIDAE  
*Alaria* spp. (WI)  
*Mephitis mephitis nigra* (Peale and Palisot de Beauvois)  
SYN.: *Mephitis nigra* (Peale and Palisot de Beauvois)  
DIPLOSTOMIDAE  
*A. mustelae* (MA,MD,MI)  
*Fibricola cratera* (MI)
- Mustela erminea* (Linnaeus)      Ermine  
DIPLOSTOMIDAE  
*Alaria mustelae* (MN)  
NANOPHYETIDAE  
*Nanophyetus salmincola* (OR)  
*Mustela erminea cicognanii* Bonaparte  
SYN.: *Mustela cicognanii* Bonaparte  
DIPLOSTOMIDAE  
*Alaria mustelae* (MN)  
ECHINOSTOMATIDAE  
*Euparyphium melis* (MN)
- Mustela frenata* Lichenstein      Long-tailed weasel  
DIPLOSTOMIDAE  
*Alaria mustelae* (MN,OR)  
*Mustela frenata noveboracensis* (Emmons)  
SYN.: *Mustela noveboracensis noveboracensis* (Emmons)  
DIPLOSTOMIDAE  
*Alaria mustelae* (MI,MN)
- Mustela vison* Schreber      Mink  
ALLASSOGONOPORIDAE  
*Cephalophallus obscurus* (MI,OR)  
BRACHYLAEMIDAE  
*Brachylaema virginiana* (LA)  
DIPLOSTOMIDAE  
*Alaria craterum* (Ont)  
*A. mustelae* (MI,MN,NC,Ont,OR,WI)  
*Enhydridiplostomum alarioides* (NC)
- Fibricola cratera* (LA,TX)  
*F. lucida* (TX)  
*Procyotrema marsupiformis* (NC)  
ECHINOSTOMATIDAE  
*Baschkirovitrema incrassatum* (NC)  
*Euparyphium melis* (MI,MN,Ont)  
*Euparyphium beaveri* (LA,NC,WI)  
*E. inerme* (Ont)  
HETEROPHYIDAE  
*Euryhelms monorchis* (MI,OH,WI)  
*E. pacificus* (OR)  
*E. squamula* (NC,OR)  
*Metagonimoides oregonensis* (MI,OR,NC)  
LECITHODENDRIIDAE  
*Paralecithodendrium naviculum* (MI)  
NANOPHYETIDAE  
*Nanophyetus salmincola* (Ont,OR)  
OPISTHORCHIIDAE  
*Parametorchis complexus* (Ont)  
PARAGONIMIDAE  
*Paragonimus kellicotti* (MI,MN,NC,OH,Ont,WI)  
*P. rudis* (NC)  
*Paragonimus* spp. (Ont)  
PLAGIORCHIIDAE  
*Plagiorchis proximus* (Ont)  
RHOPALIASIDAE  
*Gyrosoma singularis* (LA)  
*Rhopalias macracanthus* (LA)  
TROGLOTEMATIDAE  
*Troglorema mustelae* (MN,NC)  
*Mustela vison letifera* Hollister  
DIPLOSTOMIDAE  
*A. mustelae* (WI)  
ECHINOSTOMATIDAE  
*Euparyphium melis* (WI)  
*Mustela vison vulgivaga* (Bangs)  
TROGLOTEMATIDAE  
*Sellacoytle vitellosa* (LA)  
*Mustela* spp.  
DICROCOELIIDAE  
*Dicrocoelium dendriticum* (PEI)  
DIPLOSTOMIDAE  
*Alaria americana* (Ont)  
*A. arisaemoides* (Ont)  
*A. mustelae* (MI)
- Spilogale putorius* (Linnaeus)      Spotted skunk  
DIPLOSTOMIDAE  
*Alaria marcianae* (MN)  
*A. mustelae* (MN)  
NANOPHYETIDAE  
*Nanophyetus salmincola* (OR)
- Taxidea taxus* (Schreber)      Badger  
DIPLOSTOMIDAE  
*Alaria marcianae* (MN)

*A. mustelae* (IA,MN,ND)  
*Fibricola cratera* (IA)  
 ECHINOSTOMATIDAE  
*Euparyphium melis* (IA,ND)  
*Euparyphium* spp. (MN)

# MUSTELIDAE OF UNDETERMINED SPECIES

Skunk

PSILOSTOMIDAE  
*Ribeiroia ondatrae* (FL)

## FAMILY PROCYONIDAE

*Nasua nasua* (Linnaeus)  
 SYN.: *Nasua narica* (Linnaeus)  
 DIPLOSTOMIDAE  
*Alaria nasuae* (DC)  
 PARAGONIMIDAE  
*Paragonimus rudis* (Panama)

Coati

*Procyon lotor* (Linnaeus)  
 BRACHYLAEMIDAE  
*Brachylaima virginiana* (VA)  
 DICROCOELIIDAE  
*Eurytrema procyonis*  
 (CT,GA,MD,NC,NY,TN,TX,VA)  
*Lyperosomum sinuosum* (SC,TE)  
 DIPLOSTOMIDAE  
*Fibricola cratera*  
 (FL,GA,LA,NC,Que,SC,TX,WY)  
*F. texensis* (GA,TN,TX)  
*Fibricola* spp. (GA)  
*Parallelorchis diglossus* (FL,TN)  
*Pharyngostomoides adenocephala*  
 (FL,NC,Ont,TX)  
*P. ovale* (FL)  
*P. procyonis* (FL,GA,NC,Ont,SC,TN,TX,VA)  
*Procyotrema marsupiformis* (MD,NC)  
 ECHINOSTOMATIDAE  
*Echinostoma revolutum* (OH)  
*Euparyphium beaveri* (GA,NC,SC,TN)  
*Stephanoprora spinosa* (GA)  
 HETEROPHYIDAE  
*Apophallus venustus*  
 (Can,GA,NC,Ont,SC,VA)  
*Ascocotyle ampullacea* (NC)  
*A. leighi* (SC)  
*A. pachycystis* (FL)  
*Euryhelms squamula* (GA,NC,TN)  
*Metagonimoides oregonensis*  
 (GA,NC,OR,TN,VA)  
*Phagicola diminuta* (NC,SC)  
*P. longa* (NC,SC)  
 LECITHODENDRIIDAE  
*Paralecithodendrium naviculum* (GA)

Raccoon

MICROPHALLIDAE  
*Carneophallus turgidus* (FL,GA,NC,SC,TX)  
*Gynaecotyla adunca* (GA,NC,SC)  
*Maritreminoides nettai* (GA,MN,NC,SC)  
*Maritreminoides* spp. (NC,SC)  
*Microphallus* spp. (OH)  
 NANOPHYETIDAE  
*Nanophyetus salmincola* (OR)  
 OPISTHORCHIDAE  
*Metorchis conjunctus* (VA)  
*Parametorchis complexus* (NC,VA)  
 PARAGONIMIDAE  
*Paragonimus kellicotti* (GA)  
*P. mexicanus* (Costa Rica)  
*P. rudis* (GA,NC)  
 PLAGIORCHIIDAE  
*Plagiorchis muris* (TX)  
 PSILOSTOMIDAE  
*Gyrosoma singularis* (GA,SC)  
*Ribeiroia ondatrae* (FL)  
 SCHISTOSOMATIDAE  
*Heterobilharzia americana*  
 (FL,GA,LA,NC,TX)  
 TROGLOTREMATIDAE  
*Troglorema mustelae* (GA,NC,SC,VA)  
*Procyon lotor crassidens* Hollister  
 DICROCOELIIDAE  
*Robertdigenea dollfusi* (Costa Rica)  
*Procyon lotor hirtus* Nelson and Goldman  
 MICROPHALLIDAE  
*Microphallus* spp. (Sask)  
 PLAGIORCHIIDAE  
*Plagiorchis elegans* (Sask)  
 DIPLOSTOMIDAE  
*Alaria marcianae* (Sask)  
*Pharyngostomoides adenocephala* (Sask)  
*Procyon lotor litoreus* Nelson and Goldman  
 MICROPHALLIDAE  
*Carneophallus turgidus* (GA)  
*Procyon lotor lotor* (Linnaeus)  
 DICROCOELIIDAE  
*Eurytrema procyonis* (TX)  
 DIPLOSTOMIDAE  
*Fibricola cratera* (MI,WI)  
*F. texensis* (TX)  
*Pharyngostomoides ovale* (MI)  
*P. procyonis* (NC,TX)  
*Procyotrema marsupiformis* (NC)  
 HETEROPHYIDAE  
*Euryhelms monorchis* (MI)  
*Metagonimoides oregonensis* (OH)  
 LECITHODENDRIIDAE  
*Paralecithodendrium naviculum* (OH)  
 PARAGONIMIDAE  
*Paragonimus* spp. (MI)  
*Procyon lotor pacificus* Merriam  
 SYN.: *Procyon psora pacifica* Merriam

**HETEROPHYIDAE***Metagonimoides oregonensis* (OR)**NANOPHYETIDAE***Nanophyetus salmincola* (WA)*Procyon lotor solutus* Nelson and Goldman**DICROCOELIIDAE***Lyperosomum sinuosum* (SC)**DIPLOSTOMIDAE***Fibricola texensis* (SC)*Pharyngostomoides procyonis* (SC)**HETEROPHYIDAE***Ascocotyle leighi* (SC)*Phagicola diminuta* (SC)*P. longa* (SC)**MICROPHALLIDAE***Carneophallus turgidus* (SC)*Gynaecotyla adunca* (SC)*Maritreminoides* spp. (SC)**FAMILY URSIDAE***Ursus americanus* Pallas

Black bear

**DIPLOSTOMIDAE***Alaria americana* (Ont)*Pharyngostomoides procyonis* (FL)*Ursus arctos* Linnaeus

Big brown bear

**ECHINOSTOMATIDAE***Echinostoma revolutum* (MT, WY)**ORDER CETACEA****FAMILY BALAENOPTERIDAE***Balaenoptera borealis* Lesson

Sei whale

**CAMPULIDAE***Lecithodesmus spinosus* (BC)**NOTOCOTYLIDAE***Ogmogaster antarctica* (BC)*O. plicatus* (BC)*Balaenoptera physalus* (Linnaeus)

Fin whale or

**CAMPULIDAE**

Fin-backed whale

*Lecithodesmus goliath* (BC)**NOTOCOTYLIDAE***Ogmogaster antarctica* (CA)*O. plicatus* (BC, CA)*O. trilineatus* (CA)*Balaenoptera* sp.**NOTOCOYLIDAE***Ogmogaster plicatus* (CA)**FAMILY DELPHINIDAE***Delphinus delphis* Linnaeus

Common dolphin

SYN.: *Delphinus bairdi* Dall**CAMPULIDAE***Campula palliata* (Costa Rica)*C. rochebruni* (CA)*Campulidae* gen. spp. (CA)**NASITREMATIDAE***Nasitrema delphini* (CA)*N. globicephalae* (CA)*N. stenosoma* (CA)*Nasitrema* spp. (CA)*Globicephala melaena* (Trail)Long-finned  
pilot whale**CAMPULIDAE***Orthosplanchnus arcticus* (Nfld)*Globicephala sieboldii* GrayShort-finned  
pilot whale*Digenea* gen. spp. (CA)*Lagenorhynchus obliquidens* Gill

Pacific

**CAMPULIDAE**

white-sided dolphin

*Zalophotrema* spp. (CA)**NASITREMATIDAE***Nasitrema globicephalae* (CA)*Nasitrema* spp. (CA)*Lissodelphis borealis* (Peale)Northern right-  
whale dolphin**NASITREMATIDAE***Nasitrema globicephalae* (CA)*Nasitrema* spp. (CA)*Phocoena phocoena* (Linnaeus)

Harbor porpoise

SYN.: *Phocaena vomerina* (Gill)**CAMPULIDAE***Campula oblongata* (Nfld, OR, WA)*Hadwenius mironovus* (OR)*H. nipponicus* (OR, WA)*Phocoenoides dalli* (True)

Dall's porpoise

**CAMPULIDAE***Campula oblongata* (CA)**NASITREMATIDAE***Nasitrema dalli* (CA)*Nasitrema* spp. (CA)*Steno bredanensis* Lesson

Rough-toothed dolphin

**CAMPULIDAE***Campula palliata* (FL)*Snythesium tursionis* (FL)**HETEROPHYIDAE***Pholeter gastrophilus* (FL)*Tursiops gillii* Dall

Gill's bottle-nosed dolphin

**HETEROPHYIDAE***Pholeter gastrophilus* (unspecified)

*Tursiops nesarnack* Bonnaterre      Lacepede's  
 SYN.: *Tursiops*      bottle-nosed dolphin  
*truncatus* (Montagu)

#### CAMPULIDAE

*Campula palliata* (FL)

*Zalophotrema hepaticum* (CA)

#### HETEROPHYIDAE

*Pholeter gastrophilus* (FL)

#### NASITREMATIDAE

*Nasitrema* gen. spp. (unspecified)

#### UNIDENTIFIED DIGENEA

*Braunina cordiformis* (CA,FL)

### FAMILY ESCHRICHTIDAE

*Eschrichtius gibbosus* (Erxleben)      Gray whale

SYN.: *Eschrichtius robustus* (Lilljeborg)

#### CAMPULIDAE

*Lecithodesmus goliath* (CA)

#### NOTOCOTYLIDAE

*Ogmogaster antarctica* (CA)

*O. pentalineatus* (AL,CA)

### FAMILY MONODONTIDAE

*Delphinapterus leucas* (Pallas)      White whale

#### CAMPULIDAE

*Hadwenius seymouri* (AK)

## ORDER CHIROPTERA

### FAMILY EMBALLONURIDAE

*Balantiopteryx plicata* Peters      Peter's bat

SYN.: *Balantiopteryx ochoterenai* Martinez  
 and Villa

#### LECITHODENDRIIDAE

*Paralecithodendrium naviculum* (Mexico)

### FAMILY MOLOSSIDAE

*Tadarida brasiliensis* Geoffroy      Brazilian free-

#### DICROCOELIIDAE

*Dicrocoelium rileyi* (TX)

#### LECITHODENDRIIDAE

*Ochoterenatrema labda* (Mexico,TX)

*Paralecithodendrium scabrum* (Mexico)

#### PLAGIORCHIIDAE

*Plagiorchis vespertilionis* (Mexico)

#### UROTREMATIDAE

*Urotrema scabridum* (Mexico)

#### TREMATODA GEN. SPP.

*Trematoda* spp. (TX)

*Tadarida brasiliensis cynocephala* (Le Conte)

SYN.: *Tadarida cynocephala* (Le Conte)

#### ALLASSOGONOPORIDAE

*Allassogonoporus marginalis* (LA)

#### DICROCOELIIDAE

*Conspicuum icteridorum* (LA)

*Dicrocoelium rileyi* (KS,LA,OK)

#### LECITHODENDRIIDAE

*Limatulum oklahomensis* (KS,OK)

*Ochoterenatrema labda* (LA)

*Paralecithodendrium swansoni* (LA)

#### PLAGIORCHIIDAE

*Plagiorchis vespertilionis* (LA)

#### UROTREMATIDAE

*Urotrema scabridum* (LA)

*Tadarida brasiliensis mexicana* (Saussure)

#### DICROCOELIIDAE

*Conspicuum icteridorum* (TX)

*Dicrocoelium rileyi* (NM,OK,TX)

*Platynosomum beltrani* (Mexico)

#### LECITHODENDRIIDAE

*Acanthatrium nycteridis* (TX)

*Limatulum oklahomensis* (TX)

*Ochoterenatrema labda* (NM,TX)

*Paralecithodendrium carlsbadensis* (NM)

*Tremajoannes buckleyi* (NM)

#### PLAGIORCHIIDAE

*Plagiorchis vespertilionis* (TX)

#### UROTREMATIDAE

*Urotrema scabridum* (TX)

### FAMILY NATALIDAE

*Natalus stramineus mexicanus* Miller      Mexican

funnel-eared bat

SYN.: *Natalus mexicanus* Miller

#### LECITHODENDRIIDAE

*Limatulum limatulum* (Mexico)

*Ochoterenatrema labda* (Mexico)

*Paralecithodendrium emollidum* (Mexico)

#### PLAGIORCHIIDAE

*Plagiorchis muris* (Mexico)

#### UROTREMATIDAE

*Urotrema scabridum* (Mexico)

### FAMILY PHYLLOSTOMATIDAE

*Aello megalophylla* (Peters) Peter's ghost-faced bat

SYN.: *Mormoops megalophylla* Peters

SYN.: *Mormoops megalophylla senicula* Rehn

#### PLAGIORCHIIDAE

*Plagiorchis* spp. (TX)

*Micronycteris hirsuta* (Peters)

Hairy large-  
eared bat

#### ANENTEROTREMATIDAE

*Anenterotrema freitasi* (Costa Rica)

#### LECITHODENDRIIDAE

*Castroia silvai* (Costa Rica)

*Limatulum istmicus* (Costa Rica)

#### MICROPHALLIDAE

*Pseudomaritrema beolopolskoi* (Costa Rica)

*Pteronotus parnellii rubiginosus* (Wagner)  
SYN.: *Chilonycteris rubiginosus* Parnell's  
Wagner mustached bat

LECITHODENDRIIDAE

*Maxbraunium tubiporum* (Mexico)

FAMILY VESPERTILIONIDAE

*Eptesicus fuscus* (Beauvois) Big brown bat

ALLASSOGONOPORIDAE

*Allassogonoporus marginalis* (WI)

*A. vespertilionis* (OR)

DICROCOELIIDAE

*Dicrocoelium rileyi* (IA)

LECITHODENDRIIDAE

*Acanthatrium alicatai* (DC)

*A. eptesici* (BC, DC, MN, WI)

*A. microcanthum* (MN, WI)

*A. oligacanthum* (WI)

*A. pipistrelli* (IA, MN, WI)

*Glyptoporus noctophilus* (MN)

*Ochoterenatrema breckenridgei* (MN)

*O. diminutum* (WI)

*O. travassosi* (MN, WI)

*Paralecithodendrium chilostomum* (WI)

*P. macnabi* (BC, IN, MN, WI)

*P. naviculum* (MN, WI)

*P. nokomis* (WI)

*P. swansoni* (IA, MN, WI)

*P. transversum* (IA, MN, WI)

*P. vespertilionis* (IA)

*P. volaticum* (IA)

*Prosthodendrium* spp. (BC, IA)

PLAGIORCHIIDAE

*Plagiorchis micracanthos* (MN)

*P. vespertilionis* (BC, IA)

*Plagiorchis* spp. (BC)

TREMATODA GEN. SPP.

*Trematoda* spp. (IN)

*Eptesicus fuscus fuscus* (Beauvois)

LECITHODENDRIIDAE

*Acanthatrium amphidymum* (VA)

*A. beuschleini* (VA)

*A. eptesici* (VA)

*A. lunatum* (KY, OH)

*A. nycteridis* (VA)

*A. oligacanthum* (VA)

*A. pipistrelli* (KY, OH)

*Lecithodendrium* spp. (VA)

*Prosthodendrium longiforme* (KS)

PLAGIORCHIIDAE

*Plagiorchis vespertilionis* (KS)

*Eptesicus nilssoni* (Keyserling and Blasius)

UROTREMATIDAE

*Urotrema scabridum* (Costa Rica)

*Lasionycteris noctivagans* (Le Conte) Silver-haired bat

LECITHODENDRIIDAE

*Acanthatrium nycteridis* (BC)

*Paralecithodendrium macnabi* (BC)

*Prosthodendrium* spp. (BC)

PLAGIORCHIIDAE

*Plagiorchis vespertilionis* (BC)

*Plagiorchis* spp. (BC)

*Myotis californicus* (Audubon and Bachman)

LECITHODENDRIIDAE California myotis

*Paralecithodendrium chilostomum* (NE)

PLAGIORCHIIDAE

*Plagiorchis micracanthos* (NE)

*P. vespertilionis* (BC)

*Myotis californicus caurinus* Miller

ALLASSOGONOPORIDAE

*Allassogonoporus vespertilionis* (OR)

LECITHODENDRIIDAE

*Acanthatrium oregonense* (OR)

*Limatulum gastroides* (OR)

*Lecithodendriidae* gen. spp. (OR)

*Myotis evotis evotis* (Allen) Long-eared myotis

LECITHODENDRIIDAE

*Acanthatrium oregonense* (OR)

*Myotis grisescens* Howell Gray myotis

ALLASSOGONOPORIDAE

*Allassogonoporus marginalis* (KS)

LECITHODENDRIIDAE

*Acanthatrium* spp. (KS)

*Limatulum oklahomensis* (KS)

*Paralecithodendrium swansoni* (KS)

PLAGIORCHIIDAE

*Plagiorchis micracanthos* (KS)

UROTREMATIDAE

*Urotrema scabridum* (KS)

*Myotis keenii* (Merriam) Keen's myotis

LECITHODENDRIIDAE

*Limatulum gastroides* (WI)

*Ototrema schildti* (WI)

*Paralecithodendrium transversum* (IA, WI)

PLAGIORCHIIDAE

*Plagiorchis vespertilionis* (IA, WI)

UROTREMATIDAE

*Urotrema scabridum* (WI)

TREMATODA GEN. SPP.

*Trematoda* spp. (IN)

*Myotis lucifugus* (Le Conte) Little brown myotis

ALLASSOGONOPORIDAE

*Allassogonoporus marginalis* (IA, WI)

*A. vespertilionis* (OR)

*Myotitrema asymmetrica* (MN)

- LECITHODENDRIIDAE**  
*Acanthatrium beuschleini* (VA)  
*A. oregonense* (OR)  
*A. umbraculatum* (OH)  
*Glyptoporus noctophilus* (MN)  
*Gyrabascus brevigastrus* (WI)  
*Lecithodendrium anticum* (unspecified)  
*L. posticum* (unspecified)  
*Limatulum gastroides* (IA, MN, WI)  
*L. mcdanieli* (WI)  
*Limatulum* spp. (WI)  
*Ototrema schildti* (WI)  
*Paralecithodendrium swansoni*  
(BC, IA, MN, WI)  
*P. macnabi* (AK)  
*P. transversum* (WI)  
*Prosthodendrium alaskensis* (AK)  
*Prosthodendrium* spp. (BC)  
**PLAGIORCHIIDAE**  
*Plagiorchis micracanthos* (MN, NM)  
*P. vespertilionis* (BC, IA, WI)  
*Plagiorchis* spp. (AK)  
**UROTREMATIDAE**  
*Urotrema scabridum* (IA, WI)  
**TREMATODA GEN. SPP.**  
Trematoda spp. (IN)  
*Myotis lucifugus alascensis* Miller  
**PLAGIORCHIIDAE**  
*Plagiorchis vespertilionis parorchis* (WA)  
*Myotis lucifugus lucifugus* (Le Conte)  
**LECITHODENDRIIDAE**  
*Acanthatrium nycteridis* (MA)  
*Limatulum gastroides* (MA)  
**PLAGIORCHIIDAE**  
*Plagiorchis vespertilionis* (NE)  
*Myotis lucifugus occultus* Hollister  
**PLAGIORCHIIDAE**  
*Plagiorchis micracanthos* (NM)  
*Myotis nigricans nigricans* (Schinz) Black myotis  
**LECITHODENDRIIDAE**  
*Limatulum costarricensis* (Panama)  
*Ochoterenatrema diminutum* (Panama)  
*O. labda* (Panama)  
*Myotis sodalis* Miller and Allen Indiana myotis  
**ALLASSOGONOPORIDAE**  
*Allassogonoporus marginalis* (KY)  
**LECITHODENDRIIDAE**  
*Acanthatrium pipistrelli* (KY)  
*Limatulum gastroides* (KY)  
*Paralecithodendrium naviculum* (KY)  
*P. transversum* (KY)  
**PLAGIORCHIIDAE**  
*Plagiorchis micracanthos* (KY)  
*Myotis velifer incautus* (Allen)  
**ALLASSOGONOPORIDAE**  
*Allassogonoporus marginalis* (KS)  
**DICROCOELIIDAE**  
*Dicrocoelium rileyi* (KS)  
**TREMATODA GEN. SPP.**  
Trematoda spp. (TX)  
*Myotis volans longicrus* (True)  
**LECITHODENDRIIDAE**  
*Paralecithodendrium naviculum* (BC)  
**PLAGIORCHIIDAE**  
*Plagiorchis vespertilionis* (BC)  
*Nycteris borealis* (Mueller) Red Bat  
SYN.: *Lasiurus borealis* (Mueller)  
**DICROCOELIIDAE**  
*Dicrocoelium lasiuri* (DC)  
**LECITHODENDRIIDAE**  
*Acanthatrium eptesici* (IA)  
*A. pipistrelli* (IA)  
*Maxbraunium tubiporum* (Mexico)  
*Paralecithodendrium transversum* (IA)  
*P. nokomis* (IA)  
*P. swansoni* (IA)  
*Prosthodendrium eptesici* (IA)  
*P. lunatum* (IA)  
*Prosthodendrium* spp. (IA)  
*Nycteris borealis borealis* (Mueller)  
SYN.: *Lasiurus borealis borealis* (Mueller)  
SYN.: *Vespertilio lasiurus* Schreber  
**LECITHODENDRIIDAE**  
*Paralecithodendrium transversum* (TN)  
*Acanthatrium nycteridis* (IL)  
*Maxbraunium tubiporum* (Mexico)  
*Nycteris cinerea* (Palisot de Beauvois) Hoary bat  
SYN.: *Lasiurus cinereus* (Palisot de Beauvois)  
**LECITHODENDRIIDAE**  
*Limatulum gastroides* (BC)  
*Paralecithodendrium macnabi* (Mexico)  
*P. scabrum* (Mexico)  
*Prosthodendrium silvai* (BC)  
*Prosthodendrium* spp. (BC)  
**PLAGIORCHIIDAE**  
*Plagiorchis vespertilionis* (BC, IA)  
*Nycteris intermedia floridana* (Miller) Northern  
SYN.: *Dasypterus floridanus* Miller yellow bat  
**LECITHODENDRIIDAE**  
*Lecithodendrium* spp. (FL)  
*Paralecithodendrium naviculum* (MS)  
*Prosthodendrium singularium* (MS)  
*Nycticeius humeralis* (Rafinesque) Evening bat  
**DICROCOELIIDAE**

*Dicrocoelium rileyi* (TX)  
 LECITHODENDRIIDAE  
*Ochoterenatrema diminutum* (IA, TX)  
 PLAGIORCHIIDAE  
*Plagiorchis* spp. (TN)  
 UROTREMATIDAE  
*Urotrema shillingeri* (TX)

*Pipistrellus hesperus* (Allen) Western pipistrelle  
 PLAGIORCHIIDAE  
*Plagiorchis micracanthos* (NV)

*Pipistrellus subflavus* (Cuvier) Eastern pipistrelle  
 LECITHODENDRIIDAE  
*Acanthatrium pipistrelli* (MN)  
 TREMATODA GEN. SPP.  
*Trematoda* spp. (IN)  
*Pipistrellus subflavus subflavus* (Cuvier)  
 PLAGIORCHIIDAE  
*Plagiorchis micracanthos* (NE)  
*Pipistrellus* sp.  
 LECITHODENDRIIDAE  
*Ochoterenatrema breckenridgei* (MN)

#### UNIDENTIFIED CHIROPTERA

*Eptesicus propinquus*  
 UROTREMATIDAE  
*Urotrema scabridum* (Costa Rica)  
 Red bat  
 DICROCOELIIDAE  
*Dicrocoelium lasiuri* (unspecified)

#### ORDER EDENTATA FAMILY DASYPODIDAE

*Dasyus novemcinctus* Peters Nine-banded  
 BRACHYLAEMIDAE armadillo  
*Brachylaema virginiana* (TX)

#### ORDER INSECTIVORA FAMILY SORICIDAE

*Blarina brevicauda* (Say) Short-tailed shrew  
 BRACHYLAEMIDAE  
*Brachylaima dolichodirus* (NC, TN)  
*B. ovatus* (IA)  
*B. rhomboideus* (CT, IA)  
*B. thompsoni* (CT, IA, MI, NC)  
*Panopistus pricei* (CT, IL, IA, MI, NC)  
 DICROCOELIIDAE  
*Brachylecithum* spp. (NC)

*Blarina brevicauda brevicauda* (Say)  
 BRACHYLAEMIDAE  
*Brachylaima thompsoni* (WI)  
*Panopistus pricei* (WI)  
*Blarina brevicauda kirtlandi* Bole and Moulthrop  
 BRACHYLAEMIDAE  
*Brachylaima thompsoni* (MI)  
*Panopistus pricei* (MI)

*Sorex bendirii palmeri* Merriam Pacific  
 HETEROPHYIDAE water shrew  
*Euryhalmis pacificus* (OR)  
 TROGLOTREMATIDAE  
*Xiphidiotrema lockerae* (MT, OR)

*Sorex cinereus* Kerr Masked shrew  
 PLAGIORCHIIDAE  
*Neoglyphe locellus* (CO)  
*N. soricis* (MT)  
*Sorex cinereus cinereus* Kerr  
 BRACHYLAEMIDAE  
*Brachylaima thompsoni* (WI)

*Sorex palustris* Richardson Water shrew  
 PLAGIORCHIIDAE  
*Neoglyphe locellus* (CO)  
*N. soricis* (MT)  
*Sorex palustris navigator* (Baird)  
 TROGLOTREMATIDAE  
*Xiphidiotrema lockerae* (MT, OR)

*Sorex vagrans* Baird Vagrant shrew  
 PLAGIORCHIIDAE  
*Neoglyphe locellus* (CO)  
*N. soricis* (MT)  
*Sorex vagrans permiliensis* Jackson  
 SYN.: *Sorex obscurus permiliensis* Jackson  
 TROGLOTREMATIDAE  
*Xiphidiotrema lockerae* (MT, OR)

#### UNIDENTIFIED SORICIDAE

Shrew  
 BRACHYLAEMIDAE  
*Brachylaima thompsoni* (MI)

#### FAMILY TALPIDAE

*Neurotrichus gibbsii* (Baird) Shrew-mole  
 MICROPHALLIDAE  
*Microphallus aspalacis* (OR)  
*Scalopus aquaticus* (Linnaeus)  
 BRACHYLAEMIDAE  
*Itygonimus scalopi* (SC)

## ORDER LAGOMORPHA

### FAMILY LEPORIDAE

*Lepus americanus* Erxleben      Snowshoe rabbit

#### FASCIOLIDAE

*Fasciola hepatica* (WA)

#### HASSTILESIIIDAE

*Hasstilesia tricolor* (DC,VA)

*Lepus americanus phaeonotus* Allen

#### ECHINOSTOMATIDAE

*Euparyphium melis* (MN)

*Lepus americanus struthopus* Bangs

#### DICROCOELIIDAE

*Dicrocoelium dendriticum* (Nfld)

*Lepus californicus merriami* (Mearns)      Black-

#### FASCIOLIDAE

tailed jack rabbit

*Fasciola hepatica* (TX)

*Lepus californicus texianus* Waterhouse

SYN.: *Lepus texianus* Waterhouse

#### HASSTILESIIIDAE

*Hasstilesia tricolor* (TX)

*Sylvilagus aquaticus* (Bachman)      Swamp rabbit

#### HASSTILESIIIDAE

*Hasstilesia tricolor* (LA)

#### SCHISTOSOMATIDAE

*Heterobilharzia americana* (LA)

*Sylvilagus aquaticus aquaticus* (Bachman)

#### HASSTILESIIIDAE

*Hasstilesia tricolor* (MS,TN)

*Sylvilagus floridanus* Allen      Eastern cottontail

#### FASCIOLIDAE

*Fasciola hepatica* (TX)

#### HASSTILESIIIDAE

*H. tricolor*

(AL,AR,KS,KY,MD,MS,NC,PA,SC,VA)

*Sylvilagus floridanus alacer* (Bangs)

#### HASSTILESIIIDAE

*Hasstilesia tricolor* (TX)

*Sylvilagus floridanus mallurus* (Thomas)

#### HASSTILESIIIDAE

*Hasstilesia tricolor* (NC,NY)

*Sylvilagus floridanus mearnsii* (Allen)

#### HASSTILESIIIDAE

*Hasstilesia tricolor* (IA,MI,MN,NY,WI)

*Sylvilagus nuttallii* (Bachman) Nuttall's cottontail

SYN.: *Lepus sylvaticus* Bachman

#### HASSTILESIIIDAE

*Hasstilesia tricolor* (DC,PA,VA)

*Sylvilagus palustris* Bachman      Marsh rabbit

#### HASSTILESIIIDAE

*H. tricolor* (FL,NC)

### NOTOCOTYLIDAE

*Nudacotyle novicia* (NC)

*Sylvilagus palustris palustris* (Bachman)

#### HASSTILESIIIDAE

*Hasstilesia tricolor* (GA)

*Sylvilagus transitionalis* (Bangs)      New England  
cottontail

#### HASSTILESIIIDAE

*Hasstilesia tricolor* (CT)

### UNIDENTIFIED LEPORIDAE

Cottontail

#### HASSTILESIIIDAE

*Hasstilesia tricolor*

(AL,CT,KS,MD,MO,NJ,NY,PA,RI,VA,WV)

*Hasstilesia* spp. (NY)

Jack rabbit

#### HASSTILESIIIDAE

*Hasstilesia tricolor* (TX)

Rabbit

#### FASCIOLIDAE

*Fasciola hepatica* (LA)

#### HASSTILESIIIDAE

*Hasstilesia tricolor* (DC,MD,MS,NY,VA)

#### SCHISTOSOMATIDAE

*Heterobilharzia americana* (LA)

Varying hare

#### HASSTILESIIIDAE

*Hasstilesia tricolor* (NY)

### FAMILY OCHOTONIDAE

*Ochotona collaris* (Nelson)

Collared pika

#### BRACHYLAEMIDAE

*Brachylaima* spp. (AK)

## ORDER PINNIPEDIA

### FAMILY OTARIIDAE

*Callorhinus ursinus* (Linnaeus)

Northern

#### HETEROPHYIDAE

fur seal

*Cryptocotyle jejuna* (AK)

*Phocitrema fusiforme* (AK)

*Pricitrema zalophi* (AK)

*Eumetopias jubatus* (Schreber) Northern sea lion

#### CAMPULIDAE

*Zalophotrema hepaticum* (OR)

#### HETEROPHYIDAE

*Pricitrema eumetopii* (AK)

*P. zalophi* (OR)

*Zalophus californianus* (Lesson) California  
 CAMPULIDAE sea lion  
*Zalophotrema hepaticum* (CA,NY,OR)  
*Zalophotrema* spp. (CA)  
 HETEROPHYIDAE  
*Pricetrema zalophi* (OR)  
 NANOPHYETIDAE  
*Nanophyetus salmincola* (OR)  
 UNIDENTIFIED DIGENEA  
 Digenea gen. spp. (unspecified)

#### FAMILY PHOCIDAE

*Erignathus barbatus* (Erxleben) Bearded seal  
 CAMPULIDAE  
*Orthosplanchnus fraterculus* (AK)  
*Campulidae* gen. spp. (AK)  
 HETEROPHYIDAE  
*Pricetrema* spp. (AK)  
*Mirounga angustirostris* (Gill) Northern  
 HETEROPHYIDAE elephant seal  
*Pricetrema zalophi* (OR)  
*Phoca hispida* Schreber  
 CAMPULIDAE  
*Orthosplanchnus arcticus* (NWT)

*Phoca vitulina* Linnaeus Harbor seal  
 HETEROPHYIDAE  
*Apophallus venustus* (GA)  
*Cotylophallus similis* (DC)  
*Cryptocotyle lingua* (DC)  
*Pricetrema zalophi* (OR)  
*Phoca vitulina largha* Pallas  
 SYN.: *Phoca largha* Pallas  
 HETEROPHYIDAE  
*Phocitrema fusiforme* (AK)  
*Phoca vitulina richardsii* (Gray)  
 HETEROPHYIDAE  
*Pricetrema phocae* (AK)

### ORDER RODENTIA

#### FAMILY CAPROMYIDAE

*Myocastor coypus* (Molina) Nutria  
 SCHISTOSOMATIDAE  
*Heterobilharzia americana* (LA)  
*Myocastor coypus bonariensis* (Geoffroy Saint  
 Hilaire)  
 ECHINOSTOMATIDAE  
*Echinostoma revolutum* (LA)  
 SCHISTOSOMATIDAE  
*Heterobilharzia* spp. (LA)  
*Schistosomatidae* gen. spp. (LA)

#### FAMILY CASTORIDAE

*Castor canadensis* Kuhl Beaver  
 ECHINOSTOMATIDAE  
*Echinostoma revolutum* (NS)  
 FASCIOLIDAE  
*Fasciola hepatica* (WA)  
 PARAMPHISTOMIDAE  
*Stichorchis subtriquetrus*  
 (AK, Alta, CO, MN, Nfld, NS, Ont, OR, Que, TX)  
 PSILOSTOMIDAE  
*Stephanoproraoides lawi* (MN, NS, Ont)  
 SCHISTOSOMATIDAE  
*Heterobilharzia americana* (TX)  
*Castor canadensis carolinensis* Rhoads  
 PARAMPHISTOMIDAE  
*Stichorchis subtriquetrus* (LA)  
*Castor canadensis leucodontus* Gray  
 PARAMPHISTOMIDAE  
*Stichorchis subtriquetrus* (BC)  
*Castor canadensis mexicanus* Bailey  
 PARAMPHISTOMIDAE  
*Stichorchis subtriquetrus* (Mexico)

#### FAMILY ERETHIZONTIDAE

*Erethizon dorsatum* (Linnaeus) Porcupine  
 SCHISTOSOMATIDAE  
*Schistosomatium douthitti* (Ont)

#### FAMILY GEOMYIDAE

*Thomomys talpoides* (Richardson) Northern  
 NOTOCOTYLIDAE pocket gopher  
*Quinqueserialis hassalli* (WY)

#### FAMILY HETEROMYIDAE

*Liomys pictus pictus* (Thomas) Painted spiny  
 BRACHYLAEMIDAE pocket mouse  
*Brachylaema bravoae* (Mexico)

#### FAMILY MURIDAE

*Clethrionomys gapperi* (Vigors) Gapper's red-  
 PLAGIORCHIIDAE backed vole  
*Plagiorchis* spp. (Nfld, Que)  
*Clethrionomys rutilus dawsoni* (Merriam)  
 PLAGIORCHIIDAE Northern red-  
*Plagiorchis* spp. (AK) backed mouse  
*Dicrostonyx groenlandicus rubricatus*  
 (Richardson)  
 BRACHYLAEMIDAE Collared lemming  
*Brachylaima rauschi* (AK)

- Microtus longicaudus baileyi* Goldman  
BRACHYLAEMIDAE Long-tailed vole  
*Scaphiostomum microti* (CO)
- Microtus montanus fusus* Hall Montane vole  
NOTOCOTYLIDAE  
*Quinqueserialis hassalli* (CO)
- Microtus montanus nanus* (Merriam)  
SYN.: *Microtus montanus caryi* Bailey  
NOTOCOTYLIDAE  
*Quinqueserialis hassalli* (WY)
- Microtus miurus muriei* Nelson Singing vole  
SYN.: *Microtus miurus paneaki* Rausch  
BRACHYLAEMIDAE  
*Brachylaima rauschi* (AK)
- Microtus oeconomus macfarlani* Merriam  
NOTOCOTYLIDAE Tundra vole  
*Quinqueserialis quinqueserialis* (AK)
- Microtus pennsylvanicus* (Ord) Meadow vole  
NOTOCOTYLIDAE  
*Quinqueserialis quinqueserialis*  
(Nfld, NY, Que)  
PLAGIORCHIIDAE  
*Plagiorchis muris* (Nfld, Que)  
SCHISTOSOMATIDAE  
*Schistosomatium douthitti* (Man, OH)
- Microtus pennsylvanicus drummondii* (Audubon and Bachman)  
NOTOCOTYLIDAE  
*Quinqueserialis quinqueserialis* (AK)
- Microtus pennsylvanicus modestus* (Baird)  
NOTOCOTYLIDAE  
*Quinqueserialis hassalli* (CO, NM, WY)
- Microtus pennsylvanicus pennsylvanicus* (Ord)  
BRACHYLAEMIDAE  
*Brachylaima thompsoni* (MI, WI)  
NOTOCOTYLIDAE  
*Notocotylus hassalli* (MD, VA)  
*Nudacotyle novicia* (IA)  
*Quinqueserialis hassalli* (MD, MN, VA, WI)  
PROSTHOGONIMIDAE  
*Mediogonimus ovilacus* (MI)  
SCHISTOSOMATIDAE  
*Schistosomatium douthitti* (MI)
- Microtus pennsylvanicus terraenovae* Bangs  
BRACHYLAEMIDAE  
*Brachylaima* spp. (Nfld)
- Mus musculus* Ratty House mouse  
BRACHYLAEMIDAE  
*Brachylaema peromysci* (KY)  
DIPLOSTOMIDAE  
*Alaria americana* (Ont)  
*A. arisaemoides* (Ont)
- Neofiber alleni nigrescens* Howell Round-tailed muskrat  
NOTOCOTYLIDAE  
*Quinqueserialis floridensis* (FL)
- Ondatra zibethicus* (Linnaeus) Muskrat  
ALLASSOGONOPORIDAE  
*Allassogonoporus marginalis* (MI)  
DIPLOSTOMIDAE  
*Alaria craterum* (Ont)  
*A. mustelae* (AK, Man, Ont)  
*Fibricola cratera* (NE)  
ECHINOSTOMATIDAE  
*Echinochasmus schwartzi* (MD, Ont, TX)  
*Echinoparyphium contiguum*  
(BC, KS, MI, NE, Ont)  
*Echinoparyphium* spp. (NB)  
*Echinostoma callawayensis* (AK, NE, Ont)  
*E. echinatum* (PA)  
*E. revolutum*  
(BC, IL, KS, MA, Man, MD, MI, NB, NE, OH, Ont, OR, PA, Que)  
*Echinostoma* spp. (Alta)  
*Echinostomatidae* gen. spp. (NY)  
HETEROPHYIDAE  
*Euryhalmis pacificus* (OR)  
*Phagicola diminuta* (TX)  
LEUCOCHLORIDIOMORPHIDAE  
*Ptyalincola ondatrae* (MI)  
NOTOCOTYLIDAE  
*Catatropis fimbriata* (NE)  
*Monostomum affinis* (PA)  
*Notocotylus filamentis* (AK, IL, Man, MI, Ont)  
*N. urbanensis* (BC, MI, NB, Ont, PA, )  
*Notocotylus* spp. (OR)  
*Nudacotyle novicia* (IA, MI, MN, NB, Ont, TX)  
*Paramonostomum pseudalveatum* (MD)  
*Quinqueserialis quinqueserialis*  
(AK, BC, IA, IL, Man, MD, MI, MT, NB, NE, OH, Ont, OR, PA)  
*Q. zibethicus* (Que)  
OPISTHORCHIIDAE  
*Metorchis conjunctus* (PA)  
*Opisthorchis tonkae* (MN, NB)  
*Parametorchis* spp. (MD)  
PARAGONIMIDAE  
*Paragonimus kellicotti* (KY)  
*Paragonimus* spp. (MI)  
PARAMPHISTOMIDAE  
*Stichorchis subtriquetrum* (PA)  
*Wardius zibethicus*  
(Man, MI, NB, NE, OH, Ont, PA)  
PLAGIORCHIIDAE  
*Plagiorchis noblei* (Man)  
*P. proximus*  
(AK, BC, MA, MI, NB, NE, OH, Ont, PA)  
PSILOSTOMIDAE

- Psilostomum ondatrae* (Ont)  
 SCHISTOSOMATIDAE  
*Schistosomatum douthitti* (MI, Man, MN, NB)  
 UROTREMATIDAE  
*Urotrema shillingeri* (MD)  
*Ondatra zibethicus macrodon* (Linnaeus)  
 ECHINOSTOMATIDAE  
*Echinochasmus schwartzi* (MD)  
 NOTOCOTYLIDAE  
*Nudacotyle novicia* (MD)  
 UROTREMATIDAE  
*Urotrema shillingeri* (MD)  
*Ondatra zibethicus obscurus* (Bangs)  
 DIPLOSTOMIDAE  
*Diplostomum mergi* (Nfld)  
 ECHINOSTOMATIDAE  
*Echinoparyphium contiguum* (Nfld)  
*E. recurvatum* (Nfld)  
*Echinostoma revolutum* (Nfld)  
 NOTOCOTYLIDAE  
*Quinqueserialis quinqueserialis* (Nfld)  
 PARAMPHISTOMIDAE  
*Paramphistomidae* gen. spp. (Nfld)  
 PLAGIORCHIIDAE  
*Plagiorchis proximus* (Ont)  
*Ondatra zibethicus occipitalis* (Elliot)  
 ECHINOSTOMATIDAE  
*Echinostoma revolutum* (OR)  
 NOTOCOTYLIDAE  
*Notocotylus urbanensis* (OR)  
*Ondatra zibethicus osoyoosensis* (Lord)  
 DIPLOSTOMIDAE  
*Fibricola cratera* (UT)  
 ECHINOSTOMATIDAE  
*Echinostoma revolutum* (UT)  
*Echinostoma* spp. (CO)  
 NOTOCOTYLIDAE  
*Notocotylus urbanensis* (UT)  
*Paramonostomum pseudalveatum* (UT)  
*Quinqueserialis quinqueserialis* (CO, UT)  
 PLAGIORCHIIDAE  
*Plagiorchis proximus* (CO, UT)  
 PSILOSTOMIDAE  
*Psilotrema* spp. (UT)  
*Ondatra zibethicus rivalicicus* Bangs  
 SYN.: *Ondatra rivalicia* Bangs  
 ECHINOSTOMATIDAE  
*Echinochasmus schwartzi* (LA)  
 HETEROPHYIDAE  
*Phagicola nana* (LA)  
 NOTOCOTYLIDAE  
*Nudacotyle novicia* (LA)  
*Paramonostomum pseudalveatum* (LA)  
*Ondatra zibethicus zibethicus*  
 OPISTHORCHIIDAE  
*Amphimerus pseudofelineus* (IL)  
*Opisthorchis tonkai* (NY)
- PARAMPHISTOMIDAE  
*Wardius zibethicus* (IL, MA, MD, NY, OH)  
 PLAGIORCHIIDAE  
*Plagiorchis proximus* (IL, MA, NY, OH, WI)  
 SCHISTOSOMATIDAE  
*Schistosomatum douthitti* (IL, OH)  
*Ondatra zibethicus zibethicus* (Linnaeus)  
 DIPLOSTOMIDAE  
*Fibricola cratera* (IL, OH)  
 ECHINOSTOMATIDAE  
*Echinoparyphium recurvatum* (IL, ME, OH)  
*Echinostoma revolutum*  
 (IL, MD, ME, NY, OH, WI)  
 NOTOCOTYLIDAE  
*Notocotylus filamentus* (ME)  
*N. urbanensis* (NY, OH)  
*Notocotylus* spp. (IL)  
*Nudacotyle novicia* (IL, ME, OH)  
*Quinqueserialis quinqueserialis*  
 (IL, MD, ME, NY, OH, WI)  
 OPISTHORCHIIDAE  
*Amphimerus pseudofelineus* (IL)  
*Opisthorchis tonkai* (NY)  
 PARAMPHISTOMIDAE  
*Wardius zibethicus* (IL, MD, ME, NY, OH)  
 PLAGIORCHIIDAE  
*Plagiorchis proximus* (IL, ME, NY, OH, WI)  
 PROSTHOGONIMIDAE  
*Mediogonimus ovlacus* (OH)  
 SCHISTOSOMATIDAE  
*Schistosomatum douthitti* (IL, OH)
- Oryzomys palustris* (Harlan) Marsh rice rat  
 DICROCOELIIDAE  
*Lyperosomum intermedium* (FL, GA)  
*Zonorchis komareki* (LA)  
 NOTOCOTYLIDAE  
*Catatrophis johnstoni* (FL)
- Peromyscus banderanus banderanus* Allen  
 DICROCOELIIDAE Michoacan deer mouse  
*Dictyonograptus chamelensis* (Mexico)
- Peromyscus gossypinus gossypinus* (Le Conte)  
 BRACHYLAEMIDAE Cotton mouse  
*Scaphiostomum pancreaticum* (GA)  
 DICROCOELIIDAE  
*Eurytrema komareki* (GA)
- Peromyscus guatemalensis guatemalensis*  
 Merriam  
 BRACHYLAEMIDAE Guatemalan  
*Brachylaima chiapensis* (Mexico) deer mouse
- Peromyscus leucopus* (Rafinesque)  
 BRACHYLAEMIDAE White-footed mouse  
*Brachylaima peromysci* (KY, MD)

- B. virginiana* (NC)  
HETEROPHYIDAE  
*Euryhalmis squamula* (WV)  
SCHISTOSOMATIDAE  
*Schistosomatum douthitti* (MI)  
*Peromyscus leucopus leucopus* (Rafinesque)  
BRACHYLAEMIDAE  
*Brachylaima peromysci* (VA)  
*B. thompsoni* (NC)  
DIPLOSTOMIDAE  
*Alaria mustelae* (MI)  
*Peromyscus leucopus noveboracensis* (Fischer)  
BRACHYLAEMIDAE  
*Brachylaima thompsoni* (MI)  
*B. virginiana* (MI)  
DIPLOSTOMIDAE  
*Alaria mustelae* (MI)  
*Peromyscus maniculatus* (Wagner)  
BRACHYLAEMIDAE Deer mouse  
*Postharmostomum helices* (Que)  
DIPLOSTOMIDAE  
*Alaria americana* (Ont)  
*A. arisaemoides* (Ont)  
UNIDENTIFIED DIGENEA  
*Digenea* gen. spp. (Que)  
*Peromyscus maniculatus bairdii* (Hoy and Kennicott)  
DIPLOSTOMIDAE  
*Fibricola cratera* (MI, WI)  
*Peromyscus maniculatus sonoriensis* (Le Conte)  
BRACHYLAEMIDAE  
*Scaphiostomum microti* (UT)  
*Rattus norvegicus* (Berkenhout) Norway rat  
NANOPHYETIDAE  
*Nanophyetus salmincola* (OR)  
*Rattus* spp.  
HETEROPHYIDAE  
*Phagicola diminuta* (NY)  
*Reithrodontomys humilis* Eastern harvest  
(Audubon and Bachman) mouse  
DICROCOELIIDAE  
*Zonorchis komareki* (GA)  
*Sigmodon hispidus* Say and Ord Hispid  
OPISTHORCHIIDAE cotton rat  
*Metorchis conjunctus* (Que)  
PLAGIORCHIIDAE  
*Plagiorchis muris* (TX)  
FAMILY SCIURIDAE  
*Glaucomys sabrinus* (Shaw) Northern  
PLAGIORCHIIDAE flying squirrel  
*Plagiorchis proximus* (Sask)  
*Marmota monax* (Linnaeus) Woodchuck  
NOTOCOTYLIDAE  
*Quinqueserialis hassalli* (WI)  
*Quinqueserialis* spp. (WI)  
*Marmota monax rufescens* Howell  
DICROCOELIIDAE  
*Dicrocoelium dendriticum* (NY)  
*Sciurus carolinensis* Gmelin Gray squirrel  
BRACHYLAEMIDAE  
*Brachylaima* spp. (MD, NC)  
NOTOCOTYLIDAE  
*Nudacotyle novicia* (AL)  
*Sciurus carolinensis carolinensis* Gmelin  
NOTOCOTYLIDAE  
*Nudacotyle* spp. (TN)  
*Spermophilus franklinii* (Sabine) Franklin's  
DIPLOSTOMIDAE ground squirrel  
*Alaria mustelae* (Sask)  
PLAGIORCHIIDAE  
*Plagiorchis proximus* (Sask)  
*Spermophilus richardsonii* (Sabine) Richardson's  
PLAGIORCHIIDAE ground squirrel  
*Plagiorchis proximus* (Man, Sask)  
*Spermophilus variegatus utah* Merriam  
BRACHYLAEMIDAE Rock squirrel  
*Scaphiostomum microti* (UT)  
*Tamias striatus* (Linnaeus) Eastern chipmunk  
BRACHYLAEMIDAE  
*Scaphiostomum pancreaticum* (Ont, WI)  
*Tamias striatus lysteri* (Richardson)  
BRACHYLAEMIDAE  
*Postharmostomum helices* (MI)  
*P. noveboracensis* (NY)  
*Scaphiostomum pancreaticum* (MI)  
*Tamiasciurus hudsonicus* (Erxleben)  
DIPLOSTOMIDAE Red squirrel  
*Fibricola cratera* (MI)  
PLAGIORCHIIDAE  
*Plagiorchis proximus* (Sask)  
*Tamiasciurus hudsonicus loquax* (Bangs)  
DIPLOSTOMIDAE  
*Fibricola cratera* (MI)  
FAMILY ZAPODIDAE  
*Zapus hudsonius* (Zimmermann) Meadow  
NOTOCOTYLIDAE jumping mouse  
*Quinqueserialis quinqueserialis* (Nfld, Que)  
PLAGIORCHIIDAE  
*Plagiorchis proximus* (Nfld, Que)

SCHISTOSOMATIDAE  
*Schistosomatum douthitti* (MI)  
*Zapus hudsonius hudsonius* (Zimmermann)  
 NOTOCOTYLIDAE  
*Notocotylus hassalli* (MI)

## ORDER SIRENIA

### FAMILY TRICHECHIDAE

*Trichechus manatus* Linnaeus Caribbean manatee  
 SYN.: *Manatus latirostris* Harlan  
 PARAMPHISTOMIDAE  
*Chiorchis fabaceus* (FL,PA)

## INFRACLASS METATHERIA

### ORDER MARSUPIALIA

#### FAMILY DIDELPHIDAE

*Caluromys derbianus pallidus* (Thomas)  
 SYN.: *Philander laniger* Woolly opossum  
*pallidus* Thomas  
 DICROCOELIIDAE  
*Eurytrema allentoshi* (Panama)  
 OPISTHORCHIIDAE  
*Opisthorchis pricei* (Panama)  
*Didelphis marsupialis* Allen Southern opossum  
 BRACHYLAEMIDAE  
*Brachylaima virginiana* (GA)  
 PARAGONIMIDAE  
*Paragonimus kellicotti* (GA,NC)  
*P. mexicanus* (Costa Rica, Mexico)  
*P. rudis* (Panama)  
*Paragonimus* spp. (Mexico)  
 RHOPALIASIDAE  
*Rhopalias baculifer* (FL)  
*R. coronatus* (FL)  
*R. macracanthus* (Mexico)  
*Didelphis marsupialis cauae* Allen  
 SYN.: *Didelphis marsupialis etensis* Allen  
 RHOPALIASIDAE  
*Rhopalias coronatus* (Costa Rica)  
*R. horridus* (Costa Rica)  
*Didelphis marsupialis tabascensis* Allen  
 SYN.: *Didelphis mesamericana tabascensis*  
 Allen  
 RHOPALIASIDAE  
*Rhopalias coronatus* (Mexico)  
*R. macracanthus* (Mexico)  
*Didelphis virginiana* Kerr  
 SYN.: *Didelphis mesamericana mesamericana*  
 Oken  
 BRACHYLAEMIDAE

*Brachylaima didelphus* (FL)  
*B. opisthotrias* (IL,PA,TN,TX,VA)  
*B. o. virginiana* (VA)  
*B. virginiana* (GA,LA,NC,TN)  
 CYATHOCOTYLIDAE  
*Linstowiella szidati* (LA)  
 DICROCOELIIDAE  
*Eurytrema allentoshi* (TX)  
 DIPLOSTOMIDAE  
*Didelphodiplostomum variabile*  
 (FL,IL,NC,TN,TX)  
*Fibricola cratera* (FL,GA,TN)  
*F. lucida* (FL,GA,LA,TN,TX)  
 ECHINOSTOMATIDAE  
*Echinostoma revolutum* (IL)  
*Echinostoma* spp. (NC)  
 HETEROPHYIDAE  
*Phagicola diminuta* (FL)  
 MICROPHALLIDAE  
*Maritreminoides nettae* (NC)  
 OPISTHORCHIIDAE  
*Amphimerus pseudofelineus* (IL)  
 PARAGONIMIDAE  
*Paragonimus rudis* (Guatemala)  
*P. westermanni* (TN)  
 RHOPALIASIDAE  
*Rhopalias coronatus*  
 (Guatemala, Mexico, TX, VA)  
*R. horridus* (Guatemala)  
*R. macracanthus*  
 (FL,GA,IL,LA,NC,OK,PA,TN,TX)  
 SCHISTOSOMATIDAE  
*Heterobilharzia americana* (LA)  
*Didelphis virginiana californica* Bennett  
 SYN.: *Didelphis marsupialis mesamericana*  
 Oken  
 PARAGONIMIDAE  
*Paragonimus mexicanus* (Mexico)  
 RHOPALIASIDAE  
*Rhopalias macracanthus* (Mexico)  
*Didelphis virginiana virginiana* Kerr  
 SYN.: *Didelphis marsupialis virginiana*  
 (Kerr)  
 BRACHYLAEMIDAE  
*Brachylaima virginiana* (MI,VA)  
 DIPLOSTOMIDAE  
*Fibricola cratera* (TX)  
 ECHINOSTOMATIDAE  
*Echinostoma revolutum* (MI)  
*Didelphis* spp.  
 BRACHYLAEMIDAE  
*Brachylaima opisthotrias* (IL)  
*B. virginiana* (CA,IL,VA)  
 DIPLOSTOMIDAE  
*Didelphodiplostomum variabile* (GA)  
*Fibricola lucida* (IL)  
 RHOPALIASIDAE

*Rhopalias macracanthus* (IL)

*Marmosa mexicana mexicana* Merriam  
RHOPALIASIDAE Mexican mouse-opossum  
*Rhopalias coronatus* (Guatamala)

*Metachirops opossum* Miller Gray four-eyed  
SYN.: *Philander opossum* Miller opossum  
PARAGONIMIDAE

*Paragonimus rudis* (Panama)

*Metachirops opossum fuscogriseus* Allen  
SYN.: *Philander opossum fuscogriseus* (Allen)

MICROPHALLIDAE

*Maritrema prolixum* (Costa Rica)

#### OPISTHORCHIIDAE

*Amphimerus neotropicalis* (Costa Rica)

#### PARAGONIMIDAE

*Paragonimus mexicanus* (Costa Rica)

*P. rudis* (Costa Rica)

#### RHOPALIASIDAE

*Rhopalias baculifer* (Costa Rica)

*R. coronatus* (Costa Rica)

*R. horridus* (Costa Rica)

*Metachirops opossum pallidus* (Allen)

SYN.: *Philander opossum pallidus* (Allen)

#### PARAGONIMIDAE

*Paragonimus mexicanus* (Mexico)



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